Mortuary differentiation and social structure in the Middle Helladic Argolid, 2000-1500 B.C.

Milka, Eleni

Mortuary differentiation and social structure in the Middle Helladic Argolid, 2000-1500 B.C.

Volume I

Cover design: Giannis Horiatakis
Production: Copy point-Nikos Vlahos
Financial support: University of Groningen

ISBN 978-94-034-1793-6 (printed version)
ISBN 978-94-034-1792-9 (electronic version)

university of groningen

Mortuary differentiation and social structure in the Middle Helladic Argolid, 2000-1500 B.C.

Phd thesis

to obtain the degree of PhD at the
University of Groningen
on the authority of the
Rector Magnificus prof. E. Sterken
and in accordance with
the decision by the College of Deans.

This thesis will be defended in public on

Thursday 20 June 2019 at 9.00 hours

by

Eleni Milka

born on 13 August 1976
in Thessaloniki, Greece

Supervisor

Prof. S. Voutsaki

Assessment Committee

Prof. S. Andreou
Prof. J.P. Crielaard
Prof. J.C. Wright

TABLE OF CONTENTS

Volume I

Volume II

Acknowledgments

I would like to begin by thanking Sofia Voutsaki not only for providing me with many invaluable comments and advices but also for correcting the text. Most of all, I would like to thank her for showing much patience in waiting for the completion of this thesis. The thesis was funded by the Netherlands Organization for Scientific Research (NWO) and the Faculty of Arts, University of Groningen (RUG) to which I am grateful. My thesis was part of the wider project (*Shifting Identities: Social Change and Cultural Interaction in the Middle Helladic Argolid, 2000 - 1500 BC*) and it was my pleasure to work with the rest of the members of this project, Sevi Triantaphyllou and Anne Ingvarsson- Sundström responsible for the osteoarchaeological analysis, Tomeck Hertig student assistant at the time who helped a lot with the databases and of course with Sofia Voutsaki, the director of the project.

I am extremely grateful to Carol Zerner for taking time to discuss with me MH Lerna and for allowing me to use unpublished plans of the MH layers. For giving me the permission to examine the Lerna finds and the Lerna photographic archive held in the Museum of Argos I would also like to thank M. Wiencke and B. Banks. For permissions on the Asine material my thanks to C.G. Styrenius, S. Dietz, R. Hägg and especially to Gullög Nordquist for providing me information on Barbouna in advance of publication.

I am more than obliged to the Aspis directors Gilles Touchais and Anna Philippa-Touchais, not only for permitting me to study the burial offerings but for providing me with unpublished information. They were both more than willing to discuss the Aspis burials. Anna thank you for the nice times in the Argolid and for your friendship.

Other researchers working in the Argolid were more than willing to share their unpublished work. I would like to thank David Reese and Michael Lindblom for information on Lerna animal bones and shaft graves respectively and Kalliope Sarri for sharing her preliminary work on Argos 'Tumuli'.

Of course the study of the burial offerings could not be completed without the permissions of the former and the current directors of EFAAR Anna Banaka and Alkistis Papadimitriou. I would like to thank them both. My thanks also to the staff of the Argos and Nafplion museums, and especially to Evangelia Pappi, Stefanos Keramidas and Pinka Taratori for their help.

Looking back, I would like to thank my professors at the Master Course at the Aristotle University of Thessaloniki Kostas Kotsakis and Stelios Andreou for their support and their encouragement to continue my studies. My colleagues and good friends Sevi Triantaphyllou and Stratos Nanoglou were also much encouraging in the first steps of this journey and they were always willing to discuss the data and to share bibliography. Dimitris Nakassis was also eager to help by sending me relevant articles and books. Sevi and Dimitris thank you also for the nice times we shared all these years in the Argolid.

During my stay in Groningen I received much help by the GIA staff, and especially by Luuk Tol, the previous administrator, and Frans Geubel, the previous porter. I am grateful to all. I would like also to thank the current GIA coordinator Flip Kramer for his help in the final stages of my study.

My stay in Groningen was made more pleasant because of my good Groningen-Greek friends and especially Marietta Ioannidou and Daphne Penna. Marrietta and Daphne thank you for everything.

The thesis could not have looked the way it does without the help of Angeliki Gamvroula, who digitalized the plans from Lerna, Giannis Horiatakis, who designed the cover, and Rosanne van Bodegom, who translated the thesis summary into Dutch. I would like to thank them all.

Further, I wish to thank my examiners Stelios Andreou, Jan Paul Crielaard and James Wright for their thoughtful and stimulating comments and suggestions. Of course, any inconsistencies remain my own.

Finally, I would like to thank my husband Thodoris for being encouraging and supporting all these years.

INTRODUCTION

a. Description of Middle Helladic Argolid Project (MHAP) and basic questions

The PhD thesis was carried out under a five-year project financed by the Netherlands Organization for Scientific Research (NWO) and the Faculty of Arts, University of Groningen (RUG) and directed by Sofia Voutsaki. The title of this project is 'Shifting Identities. Social Change and Cultural Interaction in the MH Argolid, 2000-1500BC'. This wider project included an examination of settlement data and the imagery of the MH period alongside the analysis of the funerary data from the Argolid (see Voutsaki 2005; Voutsaki 2012; Voutsaki et al. 2013; Ingvarsson-Sundström et al. 2013; Voutsaki forthcoming). This thesis however, is an independent, self-standing study.

The central aim of this project was to explain the changes that took place during the MH period, and their intensification in the transition to the LH period (Voutsaki 2005, 135-136). More precisely, the main objectives of the wider project were:
-To explore the nature of social organisation during the MH period.
-To examine the process of social change during the MH period.
-To explain the rise of Mycenae towards the end of the MH period.
-To explore the role of external contacts.
-To explore the redefinition of personal and group identities in wider processes of cultural and social change.

The analysis of the funerary data, part of which this study is, proceeded in the following stages:
- All extant skeletal material from selected sites in the Argolid was re-examined in order to confirm age and sex identifications, but also to examine variation in occupational

activities, pathologies and diet.[1] Dental microwear analysis[2] and stable isotopes analysis[3] were used in parallel, in order to reconstruct the diet of the MH populations.

-A radiocarbon analysis of human skeletal material was carried out, in order to increase the chronological resolution of the study.[4]

- The archaeological data from selected sites were analysed to determine if there is variation between individual burials, groupings and cemeteries, and to reconstruct change through time. At a final stage, the radiocarbon, archaeological and anthropological information were integrated in order to reconstruct variation within and between communities, as well as change through time. This work was done for Lerna, Myloi, Kastraki, Barbouna and the East Cemetery (EC) of Asine, and for the Aspis in Argos as part of my PhD (Fig. 1).[5] Lerna and the three cemeteries of Asine were chosen because they are large and well documented cemeteries, while Myloi and the Aspis were added mostly for comparative reasons.

[1]S. Triantaphyllou (Department of Archaeology, Aristotle University of Thessaloniki) and A. Ingvarsson–Sundström (Societas Archaeologica Upsaliensis, Uppsala) have re-examined the skeletal material from Lerna and Asine respectively (Triantaphyllou in Voutsaki et al. 2005, 35; Triantaphyllou 2006, 95-102; 2007, 63-64; 2010b, 130-131; in preparation; Triantaphyllou et al. 2008a; Ingvarsson-Sundström in Voutsaki et al. 2007, 70-76; Ingvarsson- Sundström 2010). Triantaphyllou has also examined the human skeletons from Aspis for the publication of the site (Triantaphyllou in Philippa-Touchais and Touchais, 2002; Triantaphyllou et. al, 2008b), and the extant skeletons from Deilaki's rescued excavations of the so-called 'Argos tumuli' (Triantaphyllou in Voutsaki et al. 2009b, 179-188). A. Ingvarsson–Sundström has also studied the material from Midea (in Voutsaki et al. 2009a, 143-144).

[2] The dental microwear analysis was undertaken by Triantaphyllou as part of a separate project, financed by the Institute of Aegean Prehistory (Philadelphia) (Triantaphyllou in Voutsaki et. al. 2006, 95-102; Triantaphyllou in preparation).

[3] The stable isotopes analysis was carried out by M. Richards (Triantaphyllou et al. 2008a; 2008b; Ingvarsson- Sundström et al. 2009).

[4] The radiocarbon analysis was carried out at the Centre for Isotope Research of the University of Groningen, and the results were interpreted by S. Voutsaki and A.J. Nijboer (Groningen Institute of Archaeology) (Voutsaki et al. 2008; 2009c; 2010).

[5] The archaeological data from the 'Tumuli' of Argos (Protonotariou –Deilaki 1980a) were also analyzed by E. Milka (Milka in Voutsaki et al. 2009b, 168-179) but were at the end not included here, as they will be part of a separate sub-project examining the MH burials of Argos (Voutsaki et al. 2009b). Sofia Voutsaki has analyzed the archaeological data from Mycenae (the Grave Circles and the Prehistoric Cemetery) and Prosymna (Voutsaki in Voutsaki et al. 2009a, 141-142; 145-146; Voutsaki et al. 2009b).

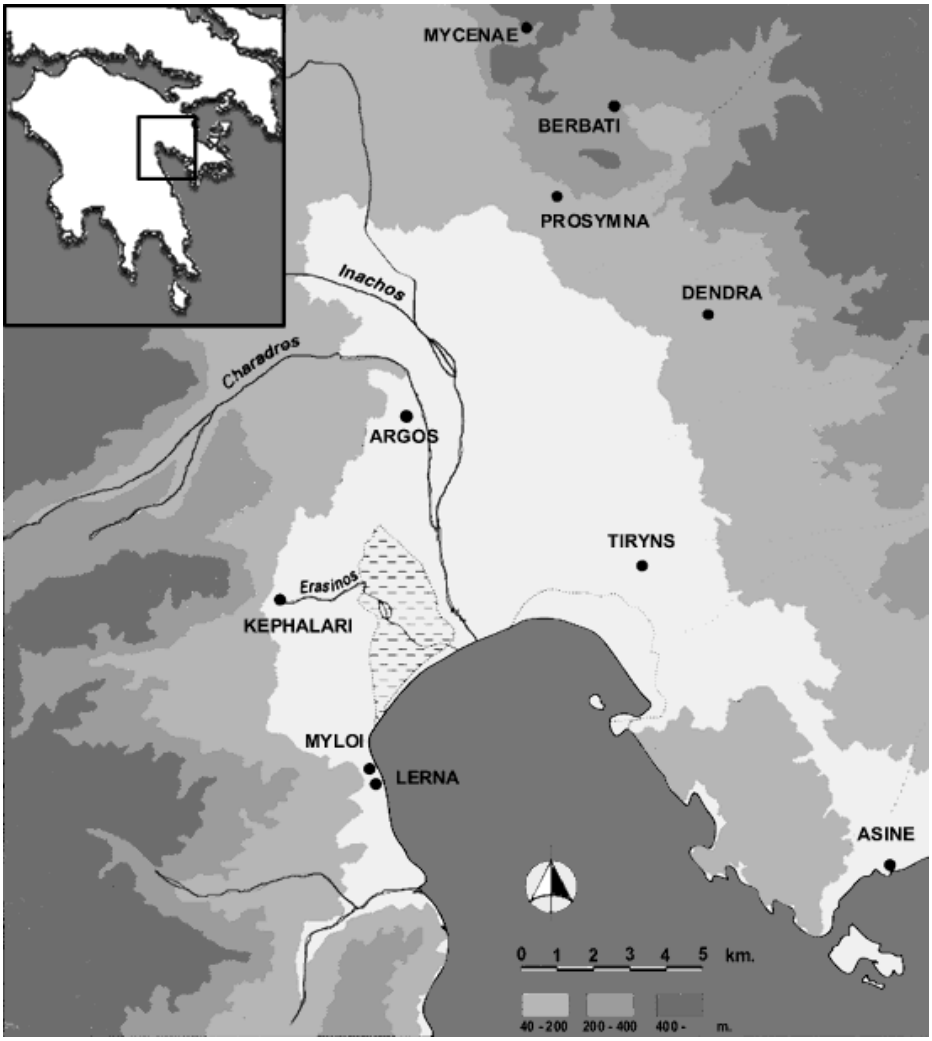

Fig. 1: Map of the study area (based on Piérart/Touchais 1996, p. 10).

The basic question addressed in this dissertation is: What does the mortuary patterning tell us about the social structure of MH society? Trying to reconstruct the social structure of the MH society is not only important for the understanding of the MH period but also for the better understanding of the processes that led to social changes at the onset of the Mycenaean era and to the establishment of a hierarchical society.

My aim, however, is not to reconstruct MH social organization, as I do not believe that this is possible on the basis of the burial data alone. Recent discussions in archaeological theory and mortuary studies have emphasized that burials do not simply reflect the social reality. Burial patterning may rather distort and misrepresent social organization through the filter of ideological representations (e.g. Hodder 1982, 139-146; Parker-Pearson 1993). Voutsaki (1993, 29-30) believes that mortuary practices create rather than legitimate social reality. They do so by shaping individual's perception of the world and of their position within it.

Social structure, however, is an ideal model, a mental template, of the relative placing of individuals within the social universe. It is thus different from the social organization, the real relations between people in everyday life. Social structure is created, maintained and subverted largely through rituals, such as the funeral (Leach 1954, 15-16; Pader 1982, 54; Morris 1987, 39-42). My aim is therefore to detect the general structural principles, which differentiated, but also kept MH communities together.

In order to reconstruct social structure during the MH period detailed, contextual analysis of the tombs was undertaken in order to detect variation and change through time. The burial offerings held at the Museums of Argos and Nauplion were systematically re-examined and photographed. The old excavation photographs, where available, were also studied and digitalized. An electronic archive of photos was created. Subsequently, all the available archaeological and anthropological information from Lerna (Caskey 1954, 1955, 1956, 1957, 1958; Banks 1967; Blackburn 1970; Zerner 1978, 1990; Nordquist 1979; Angel 1971), Myloi (Dietz, Divari-Valakou, 1990), Aspis (Touchais 1975; 1976; 1978; 1980; 1984; 1990; 1991, Philippa-Touchais 2002, Triantaphyllou, n.d.) and Asine (Frödin & Persson 1938; Nordquist 1987, 1996; Protonotariou-Deilaki 1974, 1977; Dietz 1980, 1982; Hägg & Hägg 1973, 1975, 1978, 1980; Hägg and Nordquist 1992) were encoded into a relational data base (Access). A different entry was created for each cemetery, each burial in the cemetery, each skeleton, and each offering. In total, data from seven cemeteries, 489 burials, 520 skeletons, 305 pottery offerings and 355 non-pottery offerings were encoded.[6]

In order to give some answers, spatial variation between the burials and change through time will be examined. In every chapter, I will first discuss aspects of age and gender differentiation, I will then turn to wealth and elaboration as criteria of differentiation and I will close the discussion by examining the importance of kinship. Then, I will examine change though time in all the above mentioned aspects. The degree and nature of differentiation in the mortuary record will be discussed in each section.

b. Method and theory

The main theoretical question addressed in this study is how social structure can be studied through the material culture deposited in the grave, the skeletal remains of the

[6] The Argos "Tumuli" are also included in this database.

deceased, the design and construction of the graves and the spatial patterning of the graves.

In order to address this question in a systematic way, first a short historical outline of the way burial data have been interpreted will be given. The aim is not to give a thorough overview of burial studies but to focus on the advantages and disadvantages of each approach in relation to the main research questions of this thesis. I will limit the discussion to those aspects of personal identities that I think to be fundamental for the way MH societies were structured, age and gender and kinship and to a lesser extent status. At the same time methodological issues will be discussed and parallels will be given.

Cultural-historical approach

The emphasis of the cultural-historical approach was placed on beliefs, which were seen as shared by entire societies or socio-cultural systems. Grave offerings were primarily used for dating the grave, for detecting the diffusion of ideas or the movement of people by studying differences and similarities in the material culture, and for reconstructing religious ideas and beliefs in afterlife (Binford 1972, 209-213; Triger 1989, 148-149; Johnson 1999, 16-18; Parker-Pearson 1999, 22-23).

The spatial patterning of the tombs was not systematically studied. Archaeologists often used functionalist explanations, which emphasized the domination of the social whole over the individual parts. As a result, social divisions within and between communities, which are the main focus in this study, were neglected.

The diffusionist approach was adopted in the physical anthropological interpretations of the skeletal remains, where the emphasis was on racial differentiation. Angel's work on the skeletal material from Lerna follows such approaches, but he sometimes moves beyond them as well (Angel 1971; Lagia et al. 2014, 111).

Processual approach

Processual archaeologists (i.e. Binford 1971; 1972; Saxe 1971; Tainter 1978) moved the emphasis away from cultural beliefs to social divisions. Funerary remains were seen as a direct reflection of past social relations. On the site level, the emphasis was primarily placed on the reconstruction of rank through the study of variability in the mortuary practices (Parker-Pearson 1999, 73). Of particular interest was to distinguish between vertical (e.g. elite and non-elite groups) and horizontal (e.g. membership in a

kin group, age-gender differences) differentiation (Parker-Pearson 1999, 74). The degree of differentiation was usually measured by means of energy expenditure during the funeral (Tainter 1978). Binford (1971, 1972) and other American archaeologists, strongly influenced by Goodenough's role theory, were trying to find roles and identities that can by identified in the mortuary record (Parker-Pearson 1999, 73; Thomas 1999, 127).

In this approach, grave goods were primarily interpreted as expressions of rank and the social persona of the deceased (i.e. Saxe 1971; Coleman 1977; Jacobsen & Cullen 1981; Graziadio 1991; Cavanagh & Mee 1998). Anthropological analyses of the skeletal remains had as their primary goal to detect horizontal or vertical differences between men and women or between different age categories. Dietary preferences, health status and mechanical load patterns were now widely studied (i.e. Halstead 1987; Stravopodi 1993; Papathanasiou 1999). The spatial patterning of the graves was used in order to study the distribution of various features across space using statistical analyses. The emphasis was now placed on quantification of the data (i.e. Brown 1971; Chapman 1983; O' Shea 1984; Mee & Cavanagh 1990).

Although the processual approach has heavily influenced the archaeological thought in general and the way the mortuary data have been interpreted in particular, it has been widely critiqued. One of the main arguments is that the role of ideology and beliefs was neglected. The main concern of the processual approach was on behaviour rather than agency or motivation, in other words on what people did rather than why they did it. Furthermore, the emphasis was on cross-cultural generalisations thereby omitting the historical context and masking variation between societies (Parker-Pearson 1999, 32, 73).

Post-processual, contextual approach

As a reaction to the processual way of interpreting the archaeological data, the role of symbolism and ideology was introduced to archaeology. The treatment of the dead was now seen as a form of representation, which does not passively mirror social relations (Thomas 1999, 127). Funerals were seen as political events during which the status of the deceased as well as that of the mourners were actively negotiated and re-evaluated (Parker-Pearson 1999, 32). The emphasis was placed on the relation between the living and the dead, especially on power (as social control) relations (Thomas 1999, 127-8).

The mourners do not just express their grief but they actively manipulated the social roles of the deceased.

According to this approach, grave goods do not only express the identities of the deceased but also the relationships between the mourners and the deceased or the circumstances of death (Parker-Pearson 1999, 84). Burials may serve as an opportunity for destruction of wealth, irrespective of the actual status of the deceased (Thomas 1999, 129).

Anthropological studies concentrated on small scale, contextual analyses of all possible information derived from the study of the human bones. In the post-processual approach, spatial analyses were focused on the context of the graves and the mutual associations and correlations of different aspects of the mortuary practices, and not merely on the distribution of various features across space (i.e. Wright 1987; Voutsaki 1993; 1998; Triantaphyllou 1999; Cullen 1999).

Agency, what people do as knowledgeable actors, the intentions behind their actions, was now introduced to the funerary archaeology. The focus was turned from high-level systemic explanations to the study of intra-societal groups, e.g. gender or age groups (Hamilakis et. al 2002, 3). However, although the ideological manipulation of the burial was highlighted, the experience of death was neglected.

Contemporary archaeological theory

In the last decades, the post-processual approach to ritual as misrepresenting the social reality has been challenged. It is now generally recognized that the idea of power manipulation of relationships is too narrow to fit the range of people's motivations and actions in the mortuary realm. Mortuary rites are culturally meaningful in different ways, and are not only about the socio-economic status of the deceased. The social order may be maintained through human action, but this action is culturally defined (Tarlow 1999, 23-4).

As a response to the need to underline the importance of human action, as socially and culturally informed, the notion of agency has been re-introduced to archaeology. Many different approaches to agency exist. However, it is usually agreed that agency is a socially significant quality of action rather than being synonymous with action itself (Dobres and Robb 2000, 8-10). In contrast to previous approaches, recent agency theory views agents not as independent, free-willed individuals but rather as socially embedded persons. The dialectic relationship between structures, in which people live

and which they create, and agents is emphasized (Dobres and Robb 2000, 4-5). This view of agency enables the study of social structure, as it recognizes that people's actions and choices are not independent from the sociocultural system in which they live.

According to these approaches burials carry multiple meanings which bear on the identity of the deceased and on the actions of people who buried him or her. An effort is therefore made to adopt a more holistic approach in the way we interpret our data. Both the agency of the deceased and of the mourners -restricted and enable by the sociocultural system- employ and shape material culture. In this way, material culture in the funerary realm –the cemeteries, the graves and their content- can give us information on many aspects of social life.

In this approach, grave goods are no longer simply considered as direct reflections of personal identities, such as status and wealth. Instead, artefacts in the grave are seen as constructing different aspects of the deceased person's identity and can interpreted in many different ways: as gifts (King 2004), as objects which characterize the relationships between the dead and the living (Brück 2004), as items having multiple meanings and illustrating specific life stages and gender divisions (Sofaer 2000b) or as aspired identities (Janik 2000). This does not mean, however, that people of special status never receive more gifts or more objects indicating an extensive network of relations; this possibility always exists, but needs to be demonstrated rather than assumed.

Closely related to the way the deceased is treated and to the way artefacts are placed in the grave are concepts about the body. The archaeology of the body is now an established field of study (Hamilakis et. al 2002). While different approaches to the body exist most recent studies reject the division between the biological and the cultural body (Ingold 2000, 240). It is also recognized that there are distinct and physically less tangible entities (spirits, souls, minds) which may be variously associated with the bodily component of people (Hamilakis et. al 2002, 4). The living human beings are not the only important beings in most past societies. Significant relationships between humans and 'the supernatural' may also be articulated through the body (Tarlow 2002, 24; Voutsaki 2010a; 2012).

These discussions can be directly applied to mortuary analyses by studying the body position and the positioning of objects in the grave, as long, of course, as we deal with

single inhumations. The grave forms a restricted setting where the person/body and objects are closely and meaningfully associated (Sofaer 2000a, 10). [7]

Furthermore, it has been realized that bodies may be sometimes considered as material culture themselves. Post-mortem human remains may be extensively treated and manipulated in the same manner as other objects. The existence of disarticulated bones outside a grave context, for example, may indicate that some bones were circulated among the living (Chapman 2000a). On the contrary, in the occasions of articulated burials, which are our primary focus here,[8] the integrity of the body was emphasized.

The different identities, or some of them, the deceased had during life probably had some influence on the way the body was treated in funeral. Amongst these social identities kin positions and relations and age/gender life stages are generally considered the most influential. Those identities however, are now perceived as relational attributes, constantly changing through life (Brück 2004).

We see therefore that in the last decades mortuary studies have moved beyond the post-processual explanations. A more refined interpretation of human action is offered and in general a more holistic approach to mortuary data is proposed. Despite the many nuanced discussions, the social dimension of mortuary practices, and specifically the construction of age, gender, status and kin identities, remain underdeveloped. And yet, kin-relations and age/gender life stages are among the main questions explored by archaeologists studying mortuary practices. Status/wealth differentiation is also extensively discussed but, as we will see, it may not be applicable to the largest part of our case-study. Thus, staying closer to recent approaches and recognising the complexities of human actions, the emphasis in this study will be on the social facets of burial practices. These will be introduced in more detail below.

Age and gender differentiation

The last decades many studies on gender in archaeology have been published and more recently age studies have also become popular (Sørensen 2000; Sofaer 2002; Sofaer &

[7] This is directly relevant for the MH period, where single inhumations are the norm and where iconographic representations of humans are largely missing. Thus the body position of the deceased is actually the only source of gestures and the grave the only context where body and material culture are directly associated.

[8] It should be added that disarticulation and secondary treatment are introduced in the Argolid towards the end of the MH period.

Sørensen 2013). However, gender is usually studied separate from other social dimensions resulting to a fragmentary and distorted picture of the past (Voutsaki 2004). Gender and age are indeed interdependent as gendered roles change with age. Social age, like gender, can also be used as a mechanism for societal control. Thus, age-gender life stages should be studied together rather than as separated categories (Sofaer 1997, 487-489). It is generally accepted that we need to explore those categories within our data by exploring age-gender related patterns, rather than imposing modern or anachronistic concepts. The exact relationship between age and gender and its manifestation in material culture is culturally specific. Consequently, analyses should be carefully contextualized (Sofaer 1997, 485).

Such an analysis on early Anglo-Saxon burial rites revealed that alongside the general age system was a more complex one, which saw each of the general age stages subdivided along gender divisions. In those cases, our modern, 'objective' biological stages are not adhered to, as different cultures have their own definitions of lifecycle stages (Stoodley 2000). Again, correlations between different aspects of the evidence, material associations and detailed anthropological data are the only way to detect this kind of patterning.

Moreover, gender should to be studied in combination with age as they both determine kinship position and at the same time they both are closely articulated with social differentiation. As kinship is the main principle structuring social relations in traditional societies, age and gender should not be examined in isolation, but should be discussed alongside kinship position and social status (Voutsaki 2004).

However, we have to examine age differentiation not only in relation to gender. In prehistoric fisher-gatherer-hunter communities in the south-east Baltic and Scandinavia, for example, the patterning of grave goods in non-adult graves allowed the interpretation of social relations based on age rather than sex distinctions (Janik 2000). Thus, in some societies age seems to be the main criterion guiding social relations.

The study of age and gender however is not without problems. To start with, different conceptions of age exist. The chronological age, for example, is a biological concept referring to age in years and is closely related to the physiological age which is a modern medical construct referring to the physical ageing process. Social age, on the other hand, refers to age norms of proper behaviour and is cross-cut by gender ideology (Sofaer 1997, 486). Even in a developmental sense, the age categories commonly

described within physical anthropology are problematic. Biologically accurate assessments of skeletal development form somewhat artificial divisions in terms of social and mental development (Sofaer 2000a, 8).

In addition, there are several restrictions/ problems in the skeletal estimations of age (Mays 1998). Age estimation, for example, is not accurate after the developmental years (+/-18), when the growth of bones and teeth has been completed. Further, there is a tendency to under-estimate the age of older individuals as age indicators become more ambiguous in old age. In addition, preservation and taphonomic forces may affect the condition or availability of skeletal materials for study. Finally, the cultural version of the 'osteological paradox' should be kept in mind: a dead person of a given age may not have been socially regarded in the same way as a living person of that age (Robb 2002, 161).

The exclusion of skeletally immature individuals and of the elderly is another symptom of many population analyses (Sofaer 1997, 487). Even when these age categories are included, usually a general distinction between adults and sub-adults is followed. Sofaer (1997, 488) stresses that the division between children and adults fails to consider the transition from one stage to another, the liminal phases characteristic of many rites of passage. Although she is right, we have to keep in mind that detailed anthropological analyses are not always available and the rough distinction between adults and sub-adults is often the only way to analyse the data and to make comparison between sites.[9]

The study of biological sex also has certain restrictions. In their estimates of sex, skeletal analysts typically record features indicative of morphological differences and quantifiable dimorphism. Femaleness and maleness reside at opposite ends of a continuum with an ambiguous zone in the middle. However, it was not until the eighteenth century that a two-sexed model of the body emerged in European society. Moreover, immature individuals are slotted into 'unknown' category, as their skeletal systems have not yet developed the traits diagnostic of sexual difference (Geller 2005, 598-602). To make things more complicated, age-related changes may also disguise sex estimates, as the skeletons of old females become more robust and resemble male skeletons.

[9] In our case-study, for instance, for the majority of the skeletal material from the Tumuli of Argos and from Myloi.

Despite those problems and restrictions age and gender remain powerful tools in mortuary archaeology and provide valuable insights into past societies. However, we should not apply binary gender opposites as universal categories. Rather, we must examine the importance of age and gender in social life and examine whether they were expressed or not in the mortuary practices. Finally, we must explore by which means these categorizations were given material expression (Voutsaki 2004).

Kinship and descent

Although kinship is recognized as a fundamental structuring mechanism, especially in small-scale societies, its study has been scarce in archaeology (Howell and Kintigh 1996).

The reason for this scarcity is the wrong conviction that anthropological notions of kinship, such as residence patterns and descent systems (i.e. bilateral, unilineal, ambilineal and double descent), should be applied in archaeology. It is true that residence patterns and descent systems leave no trace on material culture, and it is very difficult, if not impossible, to reconstruct them.

On the other hand, the physical anthropological study of morphological traits of the human skeleton that reflect genetic affinity and the recent aDNA analyses can at best shed some light on some aspects of biological kinship. Admittedly, both methods are not without problems. The study of morphological traits requires large number of well-preserved skeletons, in order to have statistically valued results (Nikita 2017, 182-186). Additionally, DNA analyses usually detect maternal lines through the use of mitochondrial DNA, which is more easily acquired than nuclear DNA. Moreover, aDNA techniques are effective and can give useful results on large scale studies, searching for affinities and population movements over extensive geographical areas and through broad chronological phases, i.e. Mesolithic-Neolithic population movements in Near East and Europe (Hofmanová et al., 2016). In small-scale studies, such as in the MH Argive sites, the fragmentary preservation of aDNA makes it almost impossible to ascertain genetic affinities between small groups of skeletons. To make things even worse, the climate in Greece does not favour the preservation of aDNA, and the high cost of the analysis are prohibitive.

It is therefore difficult to reconstruct kinship relations on the basis of the archaeological data alone. The question then is what kind of information concerning kinship can be revealed from archaeological studies? And how can we retrieve this information? To

start with, we have to move beyond residence patterns and descent systems and try to detect broader affiliations. In a more general sense, kinship relations may be expressed by means of a. spatial proximity and clustering, b. reuse, c. similar practices, e.g. similarities in mortuary treatment, or the use of grave types. In this way, kinship is considered as a web of social and/or biological relationships that form an important part in the way societies are organized. Kin groups usually include people related by descent, in the sense of claiming common ancestry. However, people not connected by common descent may also be connected with strong ties, for instance a married couple. Moreover, kin-position of each individual is not static but is a constantly changing element during the life course (Voutsaki, 2004).

The existence of such affiliations, whether biological, social or other, may have been expressed in spatial terms (grave clustering, relation to houses) as well as in similarities in practices leaving some patterning in the archaeological record. They may also have been expressed in temporal terms (emphasis on memory and descent), which can be inferred from the mortuary record – e.g. in the persistence of grave clusters, the marking and re-use of graves, or the presence of later offerings. We therefore can use the archaeological data in order to explore kin relations between individuals and groups.

One of the first attempts to study kinship/lineage groups was through the spatial patterning of formal cemeteries linking the appearance of formal cemeteries with specific kin groups (Saxe 1971; Goldstein 1981; Morris 1991; Robb 1994). These studies were primarily based on ethnographic parallels. However, Morris (1991) in his study found only partial support for the connection between discrete cemeteries and claims of kin groups on scarce resources, especially land. He stressed that messages other than lineage claims to resources may be communicated through burials in formal cemeteries.

Another group of studies focus on intramural burials and try to detect households through the relation between houses and graves. Chapman (2000b), for example, studied groups of burials from the Late Neolithic site of Kisköre-Damm in the Eastern Hungary which were found in close vicinity with free-standing houses. He found that the burial groups were coherent in terms of practices indicating that their members were closely related. He sees kin-relations as a socio-spatial categorization of people with complex cultural identities, which were expressed through the mapping of the deceased onto the places inhabited by the ancestors (Chapman 2000b, 177). The same mapping

of the newly dead onto habitation areas was widely practiced in the MH Argolid, as we will see in the analysis chapters below.

The temporal dimension of kin relations can be approached through evidence that point to the importance of memory and descent, and thereby the importance of ancestors. Especially when burials took place in the realm of the house/ settlement, people were in a way directly integrating their ancestors in their everyday life. In the MBA Southern Levant, for example, people were burying their dead under the house floors (Hallote 2000). In such occasions death and ancestor worship was incorporated into the daily existence by establishing a reference point to the past within the house. The direct connection with the past further helped ground individuals and collective identities (Hallote 2000, 108).

Outside the settlement, graves may have been marked and revisited indicating that dead members of the kin-group were remembered. The objects deposited in the graves may themselves express a kin web of relations by metaphorically commenting on the links between the dead and the living (Brück 2004, 311, 314). In contrast, in extramural cemeteries the dead relatives were kept at a distance from the houses and the everyday life. In the case of intramural burials under the house floor the importance and primacy of the household was emphasized, while in extramural, formal cemeteries the community may have been given more emphasis.

We see therefore that the concept of kinship can help us to interpret spatial patterning of the graves in relation to settlements, but also to understand funerary ideology and the social structure of the society under study.

Elaboration, 'wealth', status

Next to kinship and age and gender stages social status, in the sense of rank, has been widely discussed in mortuary studies, especially under the influence of the processual approach (Binford 1971; 1972; Saxe 1971; Tainter 1978). Such analyses use the quantity and the elaboration of grave finds alongside with grave elaboration to define the status of the deceased. This rather reductionist approach to grave goods is based on the follow equation: rich burial= rich person= person of rank and power= ranked society (King 2004). Without totally rejecting the possibility that richer and more elaborate graves may belong to individuals of higher status, a wide range of different interpretations of mortuary wealth and elaboration can be offered (see p. 7-8).

Nevertheless, grave elaboration is an important aspect of the mortuary treatment and a useful tool when analysing differentiation – as long as we do not decide in advance that this differentiation faithfully reflects differences in life. In the MH Argolid such an analysis is difficult, especially in the earlier MH period, when elaborate or rich graves are rare.[10]

A question then arises: Can we attribute differences to status differences? A more cautious approach is adopted in this study by examining grave elaboration alongside other aspects of the mortuary treatment, especially the quantity, quality and diversity of the burial offerings and the existence of more complex forms of burial treatment, as well as by correlating all these different parameters. Furthermore, the placement of the graves in focal areas of the settlement was included in the analysis.

c. Geographical setting

The focus of my study, as well as of the wider project, is the Argive plain and the smaller valleys around the site of Asine (243 km²), which are situated in the NE Peloponnese, Greece. This area can easily be demarcated as a study area on both geomorphological and historical terms. It is a fertile and well-watered coastal plain that is surrounded by mountains. Furthermore, it has some natural harbours in the well protected gulf of Argos. The focus of habitation in the area has been throughout its history in the fertile plain and the surrounding low hills (Zangger, 1993, 1).

In the Argolid, the larger and best documented MH cemeteries are those at Lerna, Argos and Asine. There were also two important, but less well documented cemeteries at Mycenae and Tiryns. The Prehistoric Cemetery in Mycenae is much larger than the rather dispersed burials in Tiryns. Besides these, there were some smaller cemeteries, for instance Myloi, Prosymna and Berbati Midea. Our focus here will be Lerna and the three cemeteries of Asine, Kastraki, East Cemetery and Barbouna. [11] For comparative reasons the smaller cemeteries of Myloi in Lerna and Aspis in Argos will be included. The burial assemblage of the Argos "Tumuli", although studied and analysed, will not presented here, as it will be the subject of a separate sub-project (Voutsaki et al. 2009b).

[10] But this is not true for other regions, e.g. Kastroulia in Messenia (Rambach 2010).

[11] Sofia Voutsaki has studied the Prehistoric Cemetery and the Grave Circles of Mycenae and Prosymna as part of the Middle Helladic Argolid Project (Voutsaki in Voutsaki et al. 2009a, 141-142; 145-146; Voutsaki et al. 2009b; Voutsaki 2012).

d. Chronological setting

The Middle Helladic period, i.e. the Middle Bronze Age in the Greek mainland, is divided into three phases based on the ceramic sequence: MH I, MH II and MH III and is followed by the LH or Mycenaean period.

While there is agreement about the earlier part of the period, which begins around 2100 BC, the transition to the LH period is debated. According to the 'High Chronology,' a date around 1700 BC is more possible (Manning et al. 2006), while the 'Low Chronology' prefers a date at 1600 BC (Warren and Hankey 1989). Although the definition of internal subdivisions of the period is difficult, recent 14C analyses from Lerna (Voutsaki et al. 2009c) render support to the 'High Chronology'. Current suggestions for the chronology of the period are summarised in the table below (Table 1) (Voutsaki 2010d, 100).

	Suggested Calendar Years BC			
	Dietz 1991	Dickinson 1994	Rutter 2001 (based on Manning 1995)	Voutsaki, Nijboer and Zerner (2009c)
EH III			2200/2150-2050/2000	-2100
MH I		2100-1900	2050/2000-1950/1900	2100-1900
MH II	-1775	1900-1700	1950/1900-1750/1720	1900-1800
MH III	1775-1700	1700-1580	1750/1720-1680	1800-1700
LH I	1700-1625/1600	1580-1500	1680-1600/1580	1700-

Table 1: Relative and absolute chronologies of the MH period (after Voutsaki 2010d, table 7.1)

e. Basic characteristics of the period under study

The MH period is caught between the EH and the Mycenaean period. Both periods are well studied, due to their economic growth and cultural prosperity. Until recently the MH period was described as homogeneous and static. However, recent research and the 'Mesohelladika' conference (Philippa-Touchais et al. 2010) has shown regional variability, early changes and more complexity. In terms of cultural continuity, the two first phases, MH I and MH II, and the proceeding EH III share a lot of common elements. It is now clear that some changes in domestic architecture and in mortuary

practices occur already in these phases. During the MH III and the following LH I[12] period a general precipitation of change can be observed in many different spheres (Voutsaki 2010d, 99-103).

MH settlements usually consist of freestanding houses of rectangular or apsidal plan, and have no organized lay-out, at least during the MH I-MH II period (Dickinson 1977; Wiersma 2013). However, some differences in size and contents have been observed even in the earlier period. For example, MH I House 98A in Lerna has a more complex layout, while more imported pottery was found in this house (Voutsaki 2010d, 103; Wiersma 2013, 140, 151). Recently, Philippa-Touchais (2016) has proposed the existence of an early MH (MH II?) strong retaining wall around Aspis, while an inner enclosure was probably built during MH II late. In the later phases, house plan became more complex and at the same time differences between houses become more marked. For instance, MH III Houses B and D in Asine are up to four times larger than ordinary MH houses and have a more complex layout (Nordquist 1987, 76-81; Voutsaki 2010c). Finally, in MH III–LHI, a few sites acquire a more organized layout. For instance, in the southeastern sector in Aspis a row of adjoined houses encircles the top of the hill (Philippa-Touchais 2010).

Throughout the period, Kolonna in Aigina stands out because of its heavy fortification wall, the more organized arrangement of the houses and the presence of a monumental structure from MH I onward (Felten 2007, 13, 15; Gauss & Smetana 2010, 168-169).

Overall, MH pottery is considered simple and conservative (Rutter 2007, 35). However, there are marked differences between regions and even between neighbouring sites. For instance, each site contains different proportions of local wares, and imports from different regions. Non-ceramic finds, basically tools and ornaments, are also simple and basic. However, recent studies have shown that technological advances did take place- for example, the potter's wheel was adopted (Spencer 2010). While the range and quantities of metal objects remained limited throughout the period, advances in metalwork can also be observed (Kayafa 2010). We might suggest that conformity to tradition characterized most of the mainlanders. That situation started to change already in MH II and changed dramatically toward the end of the period (Voutsaki 2010d;

[12] As one of the aims of the wider project is to understand the causes of the changes leading to the establishment of a hierarchical society in Mycenaean times, the LH I phase is also included in my analysis.

Whittaker 2014; Voutsaki & Milka 2016; Philippa-Touchais 2016; Philippa-Touchais et al. Forthcoming).

In the mortuary sphere, inhumation is the only mode of disposal of the dead. The body was usually placed in a contracted position in simple pit graves, or in cist graves. Storage vessels were more seldom used as burial containers. These vessels were then buried, on their side, inside pits. The vast majority of the burials are single and without grave offerings. When grave offerings are present, they consist mostly of ceramic vessels, bone or stone tools and only rarely of personal ornaments (Dickinson 1977, 33-34, 38; Cavanagh & Mee 1998, 23-35; Voutsaki 2010d, 103-104).

However, at the end of the period, i.e. MH III and the beginning of LH I, important changes occur: the introduction of more labour intensive tombs, the adoption of a more complex burial ritual (e.g. multiple and secondary burials, removal and breaking of offerings), the clearer gender divisions and an increase in the wealth deposited with the dead. These changes are more dramatically manifested in the large and very deep tombs of Mycenae, the so-called Shaft Graves (Karo 1930-33; Mylonas 1973; Dickinson 1977, 38-58; Voutsaki 1997, 41-3).

Until recently, MH studies concentrated on the origins of the MH civilization or on typological sequences. Papers in the journal Hydra and studies by Dickinson (1977), Zerner (1978) and Nordquist (1987), have been central for research on the MH. More recently, our view on the period has largely changed due to (Voutsaki 2010d; Voutsaki and Milka 2016):

i. new publications (Maran 1992),
ii. synthetic works on the period (Kilian-Dirlmeier 1997; Rutter 2001; Whittaker 2014; Argolid and Corinthia: Lambropoulou 1991; central Greece: Gorogianni 2002, Phialon 2011; Laconia: Boyd 2002; Messenia: Zavadil 2013)
iii. continued research of important sites (e.g., Kolonna: Gauss and Smetana 2007; Aspis: Touchais 1998; Philippa-Touchais 2013; 2016; Mitrou: van de Moortel 2016)
iv. the re-study of old excavation data (e.g. pre-Mycenaean finds from Ano Englianos: Davis and Stocker 2010; MH Argolid: Voutsaki 2005; 2016; Voutsaki & Milka 2016; Argos: Papadimitriou N. et al. 2015)

v. ceramic (Pavuk & Horejs 2012; Balitsari 2017) and bioarchaeological studies (Kolonna: Kanz et al. 2010; Lerna: Triantaphyllou et al. 2008a, Kovatsi et al. 2009, Voutsaki et al. 2013; Aspis: Triantaphyllou et al. 2008b; Asine: Ingvarsson-Sundström 2003; Ingvarsson-Sundström et al. 2009; Koufovouno: Lagia & Cavanagh 2010; Kirrha: Lagia et al. 2016).

In addition, three conferences on the MH period (Felten et al. 2007; Philippa-Touchais et al. 2010; Wiersma & Voutsaki 2016) have assembled many of the new observations and discussions. As a result, the traditional perception of MH societies as static, backward, isolated, and homogeneous is now being doubted (Rutter 2001, 132). By now we know that important changes took place already in MH II (Whittaker 2014; Voutsaki & Milka 2016; Balitsari 2017; Philippa-Touchais et al. forthcoming). The MH period is now seen as witnessing important social, political, and cultural changes that lead to the formation of the early Mycenaean polities (Voutsaki 2010d).

f. Structure of the study

In the 1st chapter the mortuary data of Lerna and Myloi are presented and analysed. The main analytical unit is the cemetery. The dating of the graves, their location and spatial organization and orientation are examined in detail. Special emphasis in given in the formation, persistence and disappearance of grave groups, and their relation with houses. The second analytical unit is the grave. First information about the skeletons is given. The available anthropological information concerning age, sex, diseases and diet are presented in this chapter. Next, grave types and furnishings and mode of disposal of the dead are discussed. The third analytical unit is the finds, which are divided in pottery and non-pottery objects. In the pottery section shapes, use categories, size, wares, preservation and position in the grave are examined. In the non-pottery section the objects are divided into use categories: tools, ornaments, tools or ornaments a. pins b. whorls, weapons, miscellaneous objects, organic remains a. animal bones b. shells c. charred grains.

The detailed analysis ends with a concluding discussion drawing together the different aspects of the evidence, stressing the main patterns and attempting a first comparison

between Lerna and Myloi. Differentiation along age and gender, status, and kinship is discussed, and some first conclusions on change through time are offered.

In the 2nd chapter the mortuary data from the three burial places in Asine, Kastraki-Barbouna-East Cemetery, are systematically presented and analysed per burial ground, using the same analytical units as for Lerna. The results from each burial place are discussed first separately and at the end a comparative inter-cemetery analysis is attempted. The same scheme is adopted in the 3rd chapter which presents the fewer burials in Aspis in Argos.

The 4th chapter first presents a summary of the basic mortuary patterns of each site studied here and, at the end, the general conclusions about social structure and change in the MH Argolid of the study. Finally, a list of the graves included in the study is given in an appendix at the end.

CHAPTER 1: LERNA-MYLOI

1.1 LERNA: INTRODUCTION

1.1.1 Landscape and topography

The site of Lerna is on the west coast of the Argolic gulf, at the south eastern edge of the village of Myloi (fig. 2). The coastline on this side of the gulf has not changed since the Bronze Age. The settlement was as close to the shore, as it is today. The foothills of the Arcadian mountains, Mt Pontinos, are on the west and the Lernean springs are to the north. The landscape between Lerna and Argos was dominated in the Bronze Age by a fresh water lagoon, Lake Lerna (Zangger, 1993, 62-64).

Fig. 2: The village of Myloi. Lerna at the left (courtesy ASCSA).

1.1.2 History of excavations and studies

Archaeological excavations on the low artificial mound were conducted annually from 1952 to 1958 by Professor John L. Caskey and members of the American School of Classical Studies at Athens (fig. 3). The mound had been reduced over centuries by erosion, and parts of it had been cut away by the railway lines and by military installations of the World War II. However, large part of the site was still undisturbed. During the excavations, about 1/7 of the whole surface and 1/20 of the volume of the

mound was dug. When work was completed many of the excavated areas were refilled with earth (Caskey et al., 1997, 5).

The preliminary reports for each excavation year have been published in Hesperia (1954-1959). The final publication of the MH settlement has not been finished yet.[13] However, the fauna of the site has been published in the first volume of the Lerna series by G. Gejvall (1969), and the human skeletons in the second volume of the same series by L. Angel (1971).[14] Additionally, three dissertations have been based on the MH material. In 1967, E. Banks finished her thesis on the EH and MH small objects. Three years later, E.T. Blackburn completed her study on the MH and LH I graves and burial customs, while in 1978 C. Zerner wrote her thesis on the beginning of the MH period at Lerna, with special emphasis on architecture and pottery. A rigorous analysis of the MH pottery was also published by the same author in Hydra 1986 and 1988. Furthermore, G. Nordquist made a series of very interesting observations about the burial practices of the period in her study on the MH burials (1979, unpublished MA thesis). Finally, A. Lambropoulou discusses briefly the MH data from Lerna as part of her PhD dissertation on the MH period in Corinthia and in the Argolid (1991, unpublished PhD thesis). These studies and dissertations have remained until now the basic sources of information on MH Lerna.

[13] C. Zerner has been preparing a publication on the settlement and the graves, which is now continued by L. Spencer, while Prof. E. Banks will publish the miscellaneous objects (Lerna V). D. Reese has re-examined all the preserved fauna and published (2008) the LH animal bones and shells of the site. The LH I graves and settlement strata will be published by M. Lindblom (Lerna VI).

[14] S. Triantaphyllou has recently re-studied the MH skeletons (in Voutsaki et al. 2005, 33-36; 2006, 95-102; 2007, 63-64; in preparation). This work is part of the MH Argolid Project.

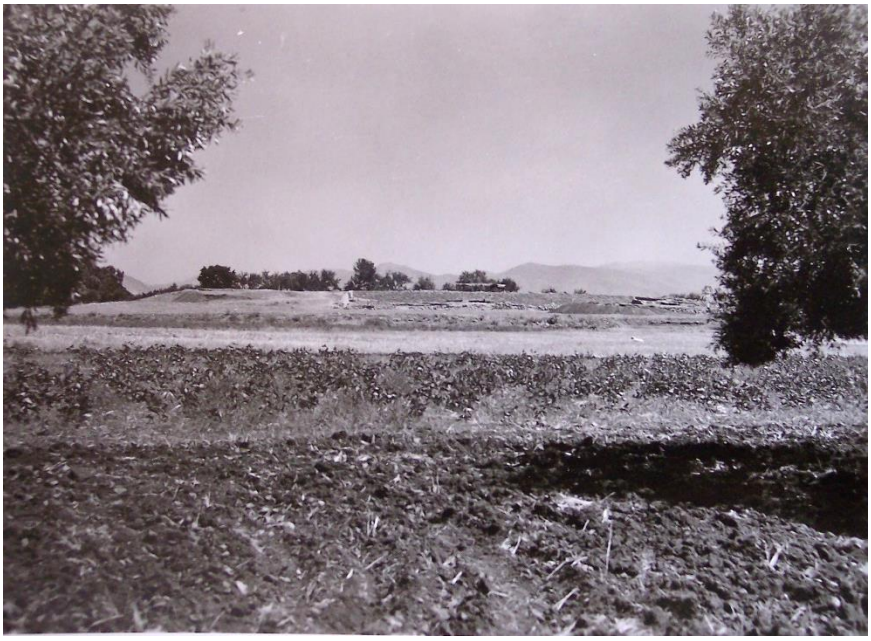

Fig. 3: Lerna. The low artificial mound (courtesy ASCSA).

1.1.3 Chronology and excavation phases

Seven major prehistoric occupation periods existed in Lerna (Table 2). These periods (designated by Roman numerals e.g. I, II) consisted of the debris of corresponding layers. Each layer generally comprises several strata, which mark the phases of the period (designated by capital letters, e.g. A, B).[15] The burial data from Lerna periods V and VI, with the exception of the material from the Shaft Graves, will be analysed here.

Period	Chronological sequence	Phases
Lerna I	Early Neolithic	
Lerna II	Middle Neolithic	
Lerna III	Early Helladic II	III A-D
Lerna IV	Early Helladic III	IV A-D
Lerna V	Middle Helladic I-III	V A-E
Lerna VI	Late Helladic I-II	
Lerna VII	Late Helladic III	

Table 2: occupation periods

Furthermore, C. Zerner has divided the pottery from the MH settlement, Lerna V, into a series of ceramic phases designated by numbers. This pioneering work has been point

[15] See: Caskey in the Foreword of Gejvall's book and Zerner 1978, introduction.

of reference for every MH study (Zerner, 1986, 1987, 1988, 2004). The correlation of the ceramic phases with the chronological phases of the MH period can be seen in Table 3 (Zerner, 1986, 1987, 1988, 2004; Dietz, 1991). Here the dating suggested by Carol Zerner will be followed, as it covers the whole course of the MH period and, additionally, this dating will appear in the final publication of the MH settlement and cemetery.

Ceramic phases, Zerner (1987, 2004)	**Chronological phases, Zerner (1987, 2004)**	**Chronological phases, Dietz (1991)**	**Comments**
Transitional Lerna IV/V	Transitional EH III/ MH		
Lerna V:1	MH I, early		
Lerna V:2	MH I, middle		
Lerna V:3	MH I, late		
Lerna V:4	MH II, early		
Lerna V:5	MH II, later	MH II, late	
Lerna V:6	MH III, early	MH II, final	
Lerna V:5-6	MH II-MH III		Zerner: Mixed MH II-MH III grave area
Lerna V:7	MH III, later	MH IIIA	Dietz: MH IIIB could not be identified in Lerna and LH IA was only sporadically present
Lerna V:6-7	MH III		
Mixed Lerna V:7 and transitional V/VI	MH III, later- MH III/LH		
Lerna VI	LH IA and LH IB	LH IB	Zerner: With sherds of Transitional Lerna V/VI

Table 3: correlation of the ceramic phases at Lerna with the chronological phases of the MH period

1.2 LERNA: THE CEMETERY

1.2.1 Introduction

The excavated part of the settlement was divided into areas which were indicated by capital letters (e.g. Area A, Area DE etc.) (Fig. 4). In each area the graves were numbered separately and the particular area where the grave was found was indicated by a capital letter (e.g. grave A5, DE1) (Caskey, 1954-1959). Later, Blackburn (1970, 27) used a different numbering system. The graves were divided into ten chronological groups and they were numbered from earlier to later. However, within each group the numbers do not reflect the chronological sequence.

I chose to use the excavation numbers of the graves in my study because: the approximate dating for many of the graves has been changed since Blackburn's dissertation; the field numbers are used in the preliminary reports; it is easier to locate a grave on the excavation plan using the letter which corresponds to each excavation area.

In total, 220 graves have been found in Lerna V and VI and are included in this study.[16]

[16] The position of four graves was noticed on the ground but these graves were not excavated: C-J, C-K, F2, DE69; Two other graves were not fully excavated: D11, D22. The information about these graves is thus incomplete.

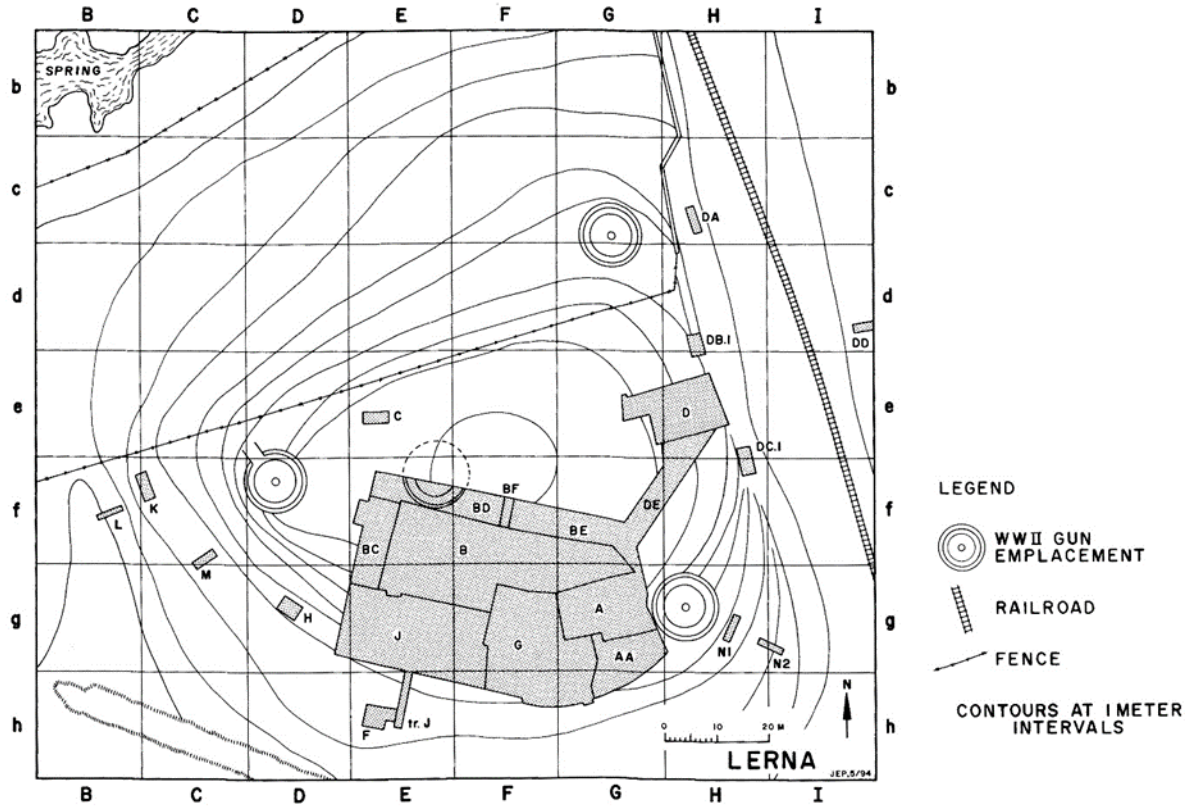

Fig. 4: excavation areas (after Caskey & Blackburn 1997, back cover).

1.2.2 Dating

Blackburn created chronological groups by dividing the graves into the major Lerna periods (IV, V, VI) and their phases (A, B, C etc.). Until recently, Blackburn's dating was the only available for the MH tombs. At present, Dr. Carol Zerner has kindly provided the MH Argolid Project with revised dates for most of the graves in advance of publication. The graves are divided into the major MH and LH chronological phases, and the corresponding ceramic (V:1, V:2 etc.) and excavation/ stratigraphic (V.A, V.B etc.) phase is indicated. In total, a revised dating is available for 187 graves, while for the remaining 33 graves Blackburn's dating will be used here. According to the new dating, a lot of graves turn out to be later than Blackburn thought.

The correlation between the different dating systems as well as the dating that it will be used in this study can be seen in Table 4. The graves are divided into the three broad phases of the MH- MH I, MH II and MH III. Additionally, graves dating to the transitional phases between EH -MH and MH -LH are studied. However, 16 graves could not be dated more closely than being later than the MH III period (Zerner, personal comm.). To overcome an overlap between the group of graves dated from the

transitional MH III/LH I-LH I early period and the group dated from the LH I later-LH IIA period with graves generally dated later than the MH III period, I will treat all the Shaft Grave Era graves (77) together. By Shaft Grave Era (SGE) I mean the time span from the transitional MH III/LH I period until and including the LH IIA period. Two graves (BD3, DE4) that date later than the SGE, according to the revised dating, are also included here for the sake of consistency, as until now these two graves were treated as MH. Finally, ten graves are attributed generally to the MH period. These graves will not be used for the chronological analyses of various features.

<table>
<tr><th>ZERNER</th><th colspan="2">BLACKBURN</th><th>IN THIS STUDY</th><th>Total No of graves</th></tr>
<tr><td>EH III/MH I (IV/V)</td><td></td><td>Transitional IV/V</td><td>EH III/MH I</td><td>2</td></tr>
<tr><td>MH I (V:1-3)</td><td>V.A-V.B (62)</td><td>Early phases of MH</td><td>MH I</td><td>27</td></tr>
<tr><td>MH II (V:4,5)
(also MH II-III)</td><td>V.C (55)</td><td>Middle phases of MH</td><td>MH II</td><td>55</td></tr>
<tr><td>MH III (V:6,7)</td><td>V.D (68)</td><td rowspan="2">Late phases of MH</td><td>MH III</td><td>47</td></tr>
<tr><td>MH III/LH I- LH I early</td><td>V.E (9)</td><td rowspan="4">SHAFT GRAVE ERA</td><td rowspan="4">77</td></tr>
<tr><td>LH I later –LH IIA (29)</td><td rowspan="2">LERNA VI (10)</td><td rowspan="2">End of MH through LH I</td></tr>
<tr><td>Probably Lerna VI or later (32)</td></tr>
<tr><td>Probably Shaft Grave Era (MH III/LH I- LH IIA) (16)</td><td></td><td></td></tr>
<tr><td></td><td>Unknown phase of MH (10)</td><td></td><td>MH</td><td>10</td></tr>
<tr><td>Post Shaft Grave Era</td><td></td><td></td><td>Post SGE</td><td>2</td></tr>
<tr><td></td><td></td><td></td><td>Total</td><td>220</td></tr>
</table>

Table 4: correlation between the different dating systems

1.2.3 Grave location

The cemetery in Lerna is usually characterised as intramural, that is it assumed that the burials were situated between or under the houses, when the last were still in use. It is true that in Lerna tombs and houses are found close together but the actual relation of the two is usually unclear. This is the result of various reasons:

a. it is generally difficult to understand from which level a grave was dug,

b. only some of the early houses were published in preliminary fashion Zerner's dissertation (1978),
c. we do not have a final dating for all the graves,
d. there is no published plan showing both houses and tombs.

Here, an attempt was made to understand the relation between the graves and the architectural remains, i.e. houses or walls. In order to achieve this, I combined information derived from:

a. The preliminary reports in Hesperia,
b. Blackburn's comments about the possible relationship between graves and house walls,
c. Zerner's study of the early houses,
d. Zerner's refined dating of most of the graves,
e. The approximate location of graves and houses.

According to this analysis, it turned out that only 24 tombs might have been contemporary with a house or a wall (Table 5). The vast majority of these graves date to the MH I and MH II periods and they belonged to 13 neonate-infants, 1 juvenile and 8 adults. I must, however, stress here that the dating of 10 out of the 24 graves had not been revised when this analysis was carried out (the date of these graves is indicated with '' in the table).

Grave	Age/gender	Date	Contemporary with House or Wall	Context information
B 11	----	'MH I'	House 98, V.A. But also later than Wall 69B, phase 3 after H.T	Below the house
BC 7	Neonate	'MH I'	Wall BW-1, V.A	
BB 2	MA-M	'MH I'	Wall BB2, V.B.	
BD 26	Neonate	'MH I'	Wall 30, V.A	
DE 62	Neonate	'MH II'	Wall AG, House AG, V.B-C?	West of Wall AG
DE 63	Infant	'MH II'	Wall AG, House AG, V.B-C?	West of Wall AG
G 2	PA-F	'MH II'	Wall BC, V.B or C? and its floor	
C-F	Juvenile-F	'MH II'	Walls D and E, V.C. But also later than Wall G.	
BD 14	MA-M	MH I	Wall 19, V.B	West of the wall
BD 20	Neonate	MH I	Wall 19, V.B	
D 20	MA-M	MH I	Wall BF, V.B	Associated with the construction of the tumulus in MH I
D 21	Infant	MH I	Walls AP and BD, V.B	
DE 49	----	MH I	Room AH, House AR, V.B-C (second floor?). But also later than the first floor.	North of Wall AI
DE 64	Neonate	MH I	Room AC, House AR, V.B-C. But also later than Wall AZ.	Possibly contemporary with the floor of Room AC. Cut on the Wall AZ.
DE 68	Neonate	MH I	Room AC, House AR, V.B-C.	Possibly contemporary with the floor of Room AC. North side of Wall AR.
DE 71-72	MA-M/PA-M	MH I	Room AR, House AR, V.B-C. But also earlier than Wall AH.	Under the floor of Room AR. Below Wall AH.
DE 52	Neonate	MH I or MH II	Room AC, House AR, V.B-C	Contemporary with one of the floors
DE 70	Neonate	MH I or MH II	Wall B, V.B or C?	
A 2,3,4	PA-F	MH II	House M, V.C	In street north of the house. Scattered bones together with a broken vase
B 15	Infant	MH II	Possibly contemporary with Wall BD19, V.B.	
B 21A-B	PA-F/---	MH II	Wall 100, V.C and D	
D 16	Infant	MH II	Wall BD, V.B.	Inside a house?
D 9	PA-M	MH III	Walls AL and R, V.D. and the floor at 5.20A.T in the adjacent Room Y.	
DE 34	Infant	MH III	The second floor of House V, V.C-D?	

Table 5: graves possibly contemporary with a house or wall (based only on published data)

However, in most cases (114) the burials were placed upon the ruins of earlier houses. This was more common during the later phases of the site, from the MH III until the LH I period. In fact, Dietz (1991, 275, 285) has suggested, and Maran (1995, 71) agrees with him, that during the MH IIIB-LH I period the site was exclusively used as burial ground. More precisely, the graves were placed upon the abandoned houses, as in the case of Barbouna in Asine (see chapter 2.10.3). This suggestion seems to hold true for the graves of the latest phase, as no substantial architectural remains contemporary with them have been found so far.[17] In any case, it should be noticed that the upper layers were badly eroded.

At the same time, however, it became clear that already during the MH I-MH II period some graves post-dated the houses in which they were dug (e.g. grave A12 upon House Q; grave BE30 upon Room 45; grave BD27 upon House 24). In the absence of a published plan showing both houses and burials in each sub-phase, a more detailed analysis based on the preliminary information alone could not be undertaken. After extensive discussions with C. Zerner[18] and consultation of the unpublished plans showing the relation between houses and graves in three important excavation areas- namely areas BE, DE and D- a new pattern emerged concerning the relation between houses and graves[19] (Milka in Voutsaki et al. 2006, 106-107; Milka 2010, 350-352).

AREA BE

Area BE and the north part of area A, which is also included here, are situated at the NE part of the main excavation area. Six MH strata were excavated there (Caskey 1957, 148; Zerner 1978, 39).

- During the transitional EH III/MH I period two apsidal houses, House 68A and House 99E, were erected next to each other (Fig. 5). No graves were associated with these houses. Both houses were rebuilt at least once before they were replaced during the late MH I period by another apsidal house, House 98A (Fig. 6), in which Rooms 44 and 45 and a courtyard were

[17] There are some LH I walls, but their layout and function are unclear.

[18] I am extremely grateful to C. Zerner for taking the time to discuss with me MH Lerna at great length and for allowing me to use unpublished plans of the MH layers of Lerna. The permission to include the material was given by ASCSA, and personally by Wiencke, Zerner and Banks, long before the publication was entrusted to Spencer.

[19] For the remaining excavation areas, no revised data were provided as they were under analysis. Unfortunately, it was impossible to consult L. Spencer, as this could cause further delay.

incorporated. Only one grave (BE28: pit, neonate), which was opened in the courtyard area, may have been contemporary with this house complex.

- After the destruction of the house complex by fire during the MH II period, a number of graves were opened upon its ruins (BE22, BE23, BE24, BE25, BE26, BE27, BE29, BE30, BE31) (Fig. 7). Actually, the area was used exclusively for burials from the middle part of the MH II period until the transition to the MH III period.
- During the transition from the MH II to the MH III period, the rectangular House 100 was erected on top of the earlier graves (Fig. 8). Again, no tombs contemporary with the house were found. After the house was destroyed, tombs dating from the late MH III were opened upon the ruins (BE5, BE9, BE10, BE11, BE12, BE15?, BE17, BE19?, BE20) (Fig. 9).
- Finally, during the transitional MH III/LH I period Room 3 and Room 5 were built west of the former graves (Fig. 10). This is the last building activity observed in this area. Although a couple of graves may have been contemporary with these two rooms (graves that cannot be dated accurately), most of the associated tombs date from the LH I period and postdate the rooms (BE2, BE3, BE4, BE6, BE7, BE8, BE13, BE14, BE16) (Fig. 11).

If we examine the spatial distribution of the graves inside and above houses, it is interesting that graves were not opened in the main area of the apsidal House 98A. Rather, the graves were placed in or over the yard and the two storage/cooking rooms found there. Only during the MH III period a grave (B16: YA female)[20] was placed over the main area of House 98A and even later, during the LH IIA period, Shaft Grave 2 was cut down into the ruins of the same house. On the contrary, graves were opened upon the ruins of the later rectangular House 100. It should be noted, however, that the plan of this house is not complete.

[20] The dating of this grave has not been revised yet. The grave was found close to surface and it was disturbed. It may have been later, as a piece of iron was found in it.

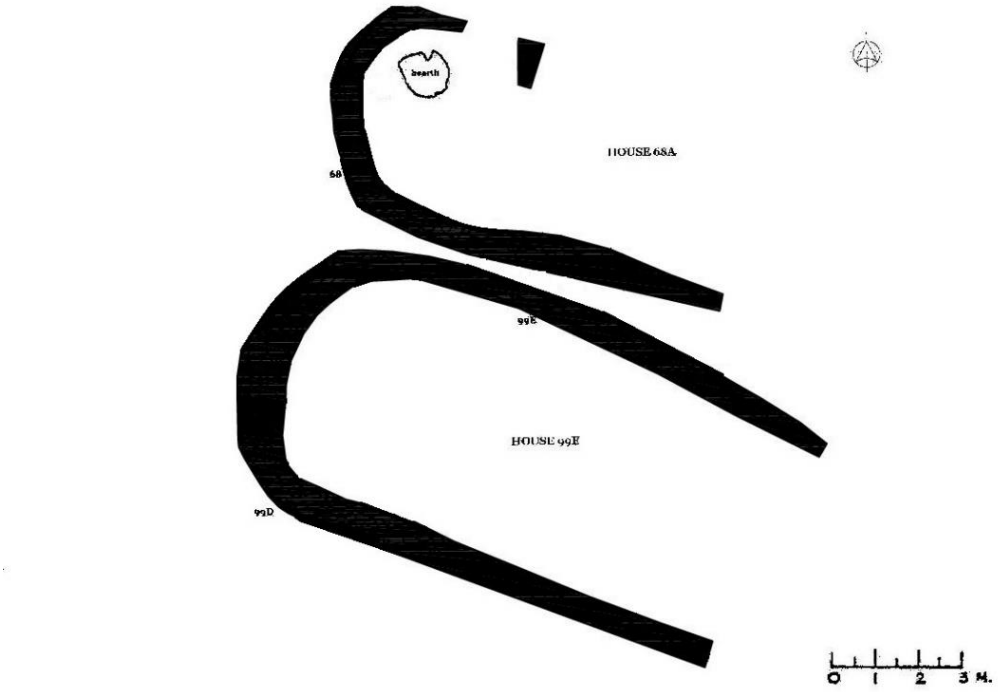

Fig. 5: Area BE, Houses 68A and 99E (after original plans, Lerna archive, ASCSA, courtesy C. Zerner, BE plans 1-2)

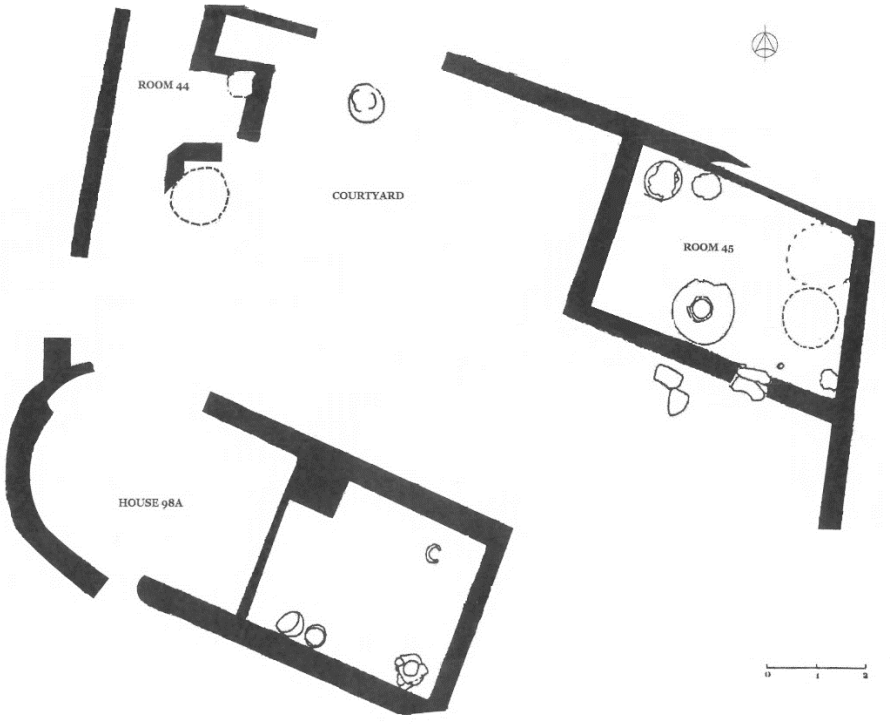

Fig. 6: Area BE, House Complex 98A (after original plans, Lerna archive, ASCSA, courtesy C. Zerner, BE plans 3-4).

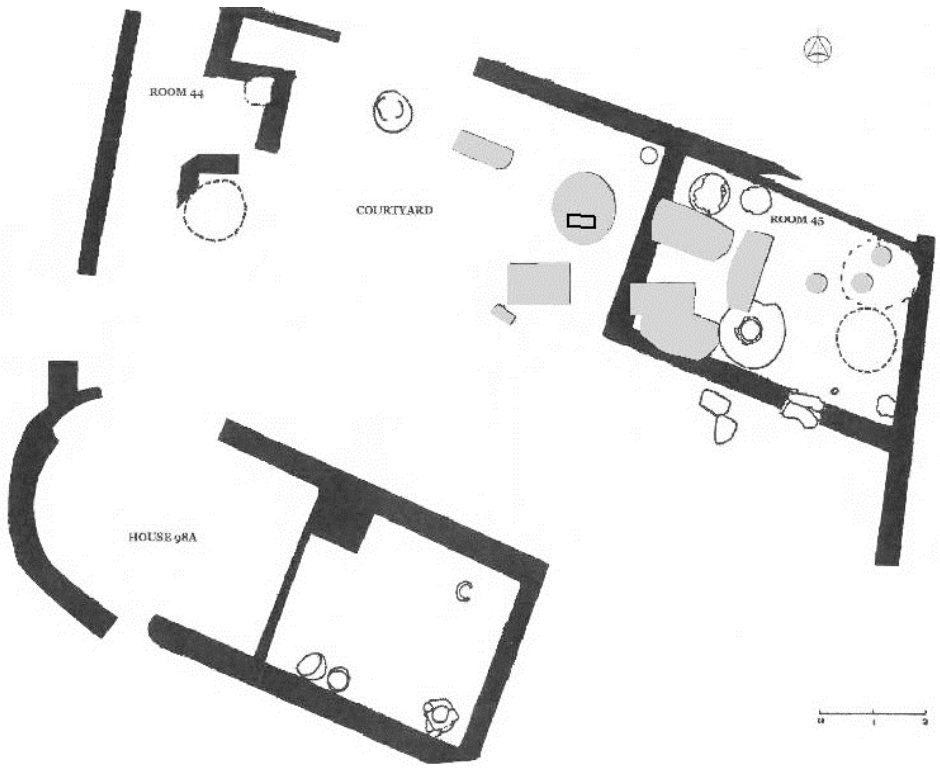

Fig. 7: Area BE, House Complex 98A. In grey graves opened after the abandonment of the house (after original plans, Lerna archive, ASCSA, courtesy C. Zerner, BE plans 3-4).

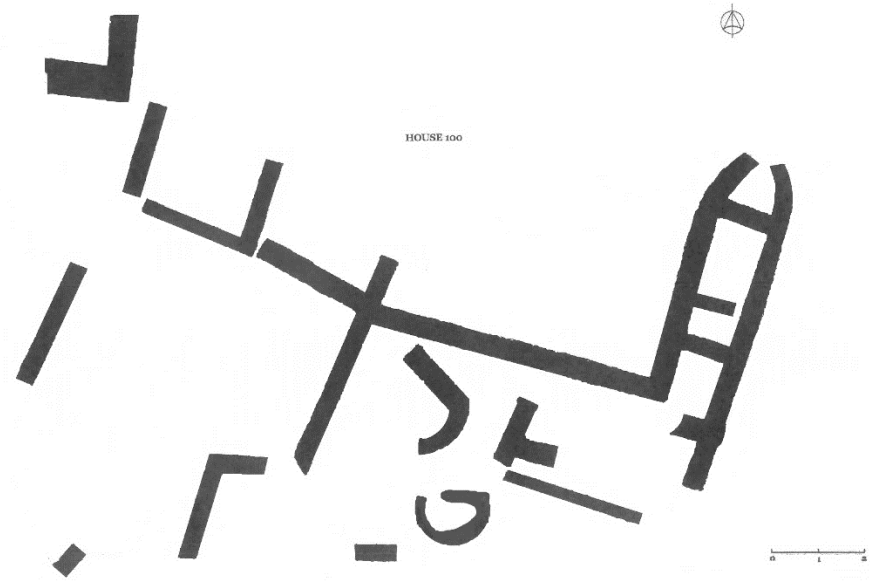

Fig. 8: Area BE, House 100 (after original plans, Lerna archive, ASCSA, courtesy C. Zerner, BE plan 5).

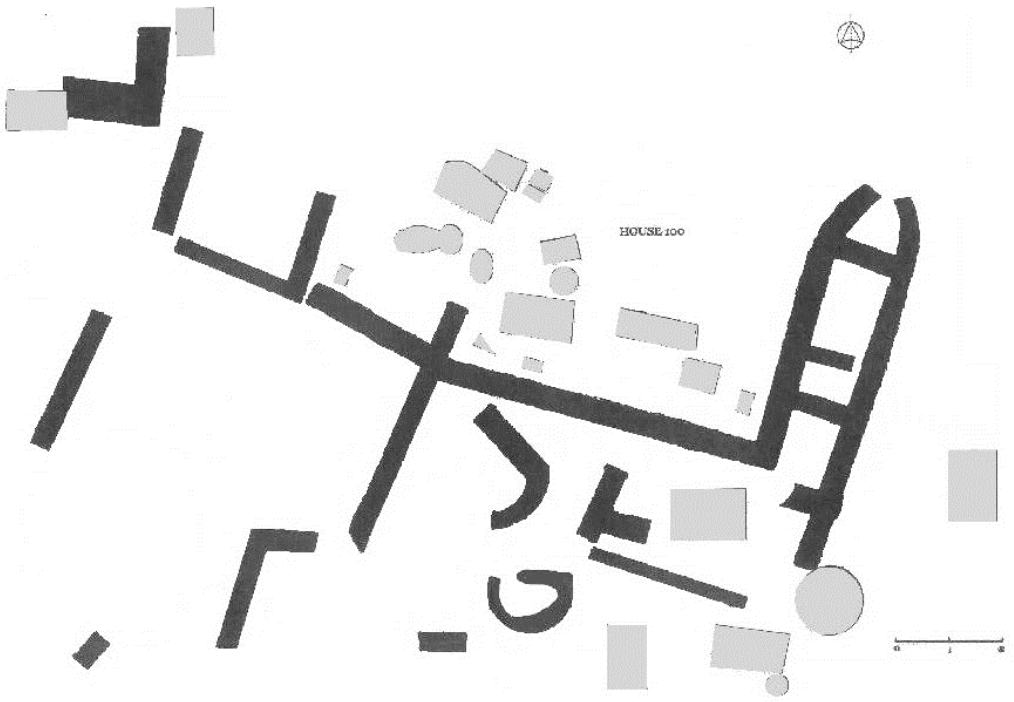

Fig. 9: Area BE, House 100. In grey graves opened after the abandonment of the house (after original plans, Lerna archive, ASCSA, courtesy C. Zerner, BE plan 5).

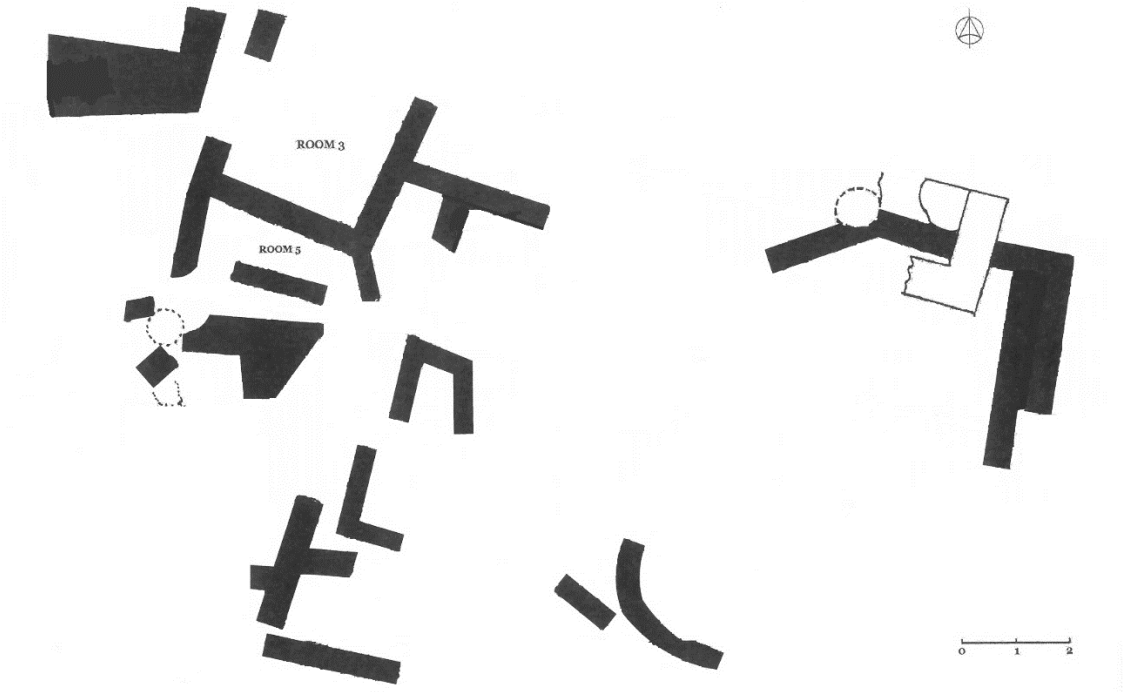

Fig. 10: Area BE, Rooms 3 and 5 (after original plans, Lerna archive, ASCSA, courtesy C. Zerner, BE plan 6).

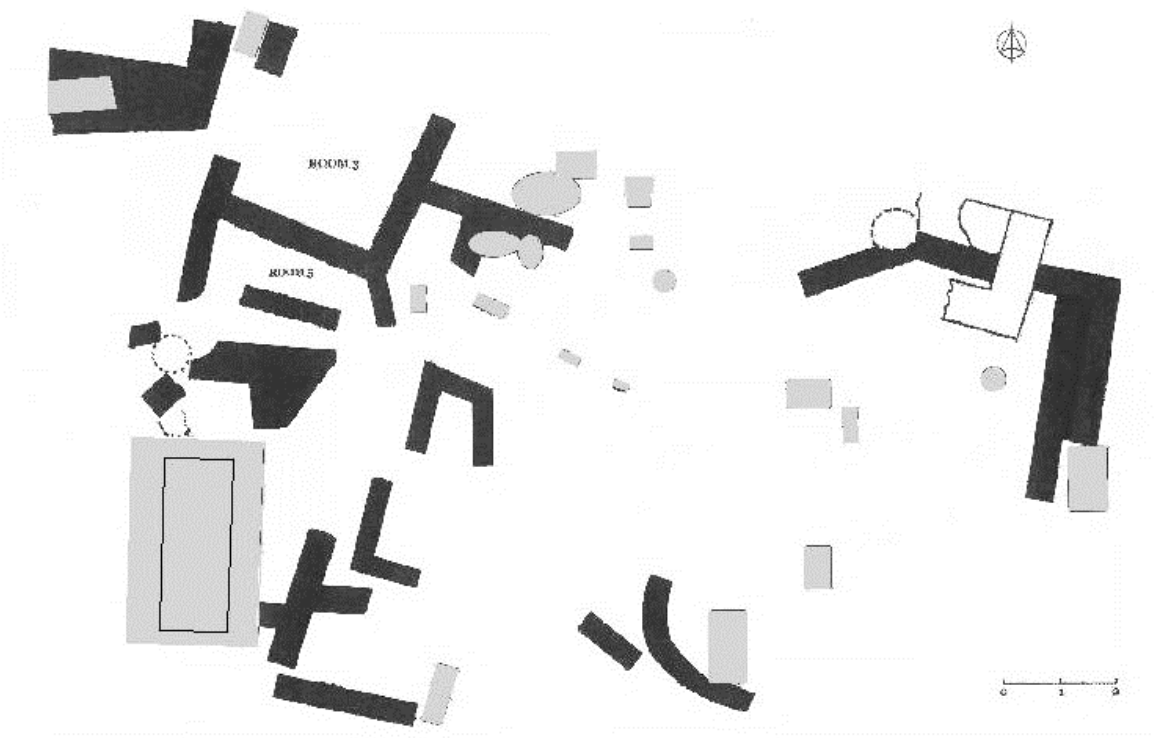

Fig. 11: Area BE, Rooms 3 and 5. In grey graves opened after the abandonment of the rooms (after original plans, Lerna archive, ASCSA, courtesy C. Zerner, BE plan 6).

AREA DE

Area DE is a long and narrow trench (+/-25m x 5m) connecting the main excavation area with trench D at the NE (Caskey 1957, 145). Although at this area it was very difficult to follow the stratigraphy, nine successive architectural phases were distinguished (Caskey 1957, 145-6).

- Two walls (Wall BM and Wall BP) found under House AR are the only architectural remains dating from the transitional EH III/MH I period in this area (Fig. 12). No graves contemporary with these walls have been found. One grave (DE71-72: two males) post-dated the two walls but it is not clear whether it was earlier or later than House AR of the next phase.
- The walls were replaced during the late MH I period by House (or rectangular Room) AR (Fig. 12). Two graves (DE 68: jar, neonate; DE 50: jar, infant) and possibly a third (DE 33: pit, neonate) were contemporary with the house.
- During the transitional MH I/MH II period, the apsidal House 55 (re-built 3 times) and House (or rectangular Room) AM (Fig. 12) were erected in the area

N of the earlier House/ Room AR.[21] No graves contemporary with these houses-rooms have been found.

- After the destruction of House/ Room AR a number of graves were opened upon its ruins (DE28:II, DE41:II, DE49:II, DE52:I late, DE64:I). No graves were opened upon the excavated part of the apsidal House 55 (Fig. 13).
- During the MH II period, House AC (or rectangular Room AA) was erected partly over House/ Room AR (Plan 14). Further to the NE of House/ Room AC (and north of the earlier House/Room AM) a series of terraces or house walls were built with a paving at their south end (Walls BA, BK, BL, BC, BG, AQ, AG). Some graves may have been contemporary with or later than these walls (DE35, DE36, DE48, DE56, DE61, DE62, DE63, DE65, DE66, DE67). After the destruction of House/ Room AC a grave was opened upon its ruins (DE18). When the terrace or house walls went out of use, graves were also opened in this area (DE34?, DE53, DE55, DE58, DE59, DE60, DE69?) (Fig. 15).
- In the early part of the MH III period, rectangular Room AW was built in the north part of area DE and the partly excavated House V was built in the centre of the area, above the terrace or house walls and the graves of the previous period (Fig. 16). Between these two constructions, at least two more rectangular rooms adjacent and south of room AW (defined by walls AB, AX and T-1?) and a paved area between the two rooms and House V existed. Two graves may have been contemporary with or later than these constructions. Both (DE25: pit, neonate; DE38: pit, neonate) were opened in the area defined by walls AB and T-1, which was probably a room. When House V was destroyed by fire, its north part and the paved area further north were used for burials (DE19, DE20, DE22?, DE23, DE24, DE27, DE29, DE30, DE31, DE32, DE34?, DE47). Graves were also opened upon the ruins of Room AW and the two rooms south of it (DE37?, DE39, DE40, DE42, DE45, DE46, DE48, DE57) (Fig. 17).
- After cleaning and levelling the ground, House complex D and House P were erected during the late MH III-MH III/LH I period (Fig. 18). House complex D was covering the whole area previously occupied by House V, Room AW and

[21] These three constructions- House/ Room AR, apsidal House 55 and House/ Room AM- may belong to the same house complex, similar with House complex 98A in area BE.

the space between them. House P (only a corner of it was excavated) was erected at the NE part of area DE. Once again, no contemporary with the houses graves have been found. After both houses were destroyed (House D by fire after it had been rebuilt at least twice) tombs dating from the early part of the LH I period were opened above various areas/rooms of House complex D (DE7?, DE8, DE9, DE12, DE13, DE14, DE15, DE16, DE17, DE26, DE39, DE43, DE44, DE54) (Fig. 19).

- Finally, the function of some LH I walls (e.g. N, A, F, O) erected in the central part of area DE and their stratigraphic relation to the associated graves (DE2-3, DE5, DE6, DE10, DE21, DE39) is difficult to ascertain, because the LH I material was very mixed (Fig. 20, Fig. 21).

Although the architectural remains were very fragmentary, as area DE was very narrow and many graves were opened there, some general remarks concerning the spatial distribution of the graves in and above the houses can be made. It is interesting that here, as in area BE, contemporary and later graves were sometimes opened in association with cooking and storing rooms rather than inside or over the main area of apsidal houses. More specifically, it has been suggested (Zerner, personal comm.) that the MH I Room AR was a kitchen area, having the same function as Room 44 in area BE. It is also possible that this room was part of a larger house complex, which included the apsidal House 55[22] and Room AM just to the north, in the same way as Room 44 belonged to the same house complex with the apsidal House 98A and Room 45 in area BE.

Moreover, the two graves that may have been contemporary with the use of the MH III House/ Room AW were opened in the same room. In particular, grave DE 25 was found in the corner of walls AB and T-1 and grave DE38 next to two hearths. The existence of these hearths suggests a cooking, or in any instance a special function of this room as well.

Finally, the plan of House complex D is far from complete and the function of different rooms/areas is unknown, making a more refined spatial analysis impossible. The same holds true for House P from which only its NW corner was excavated.

[22] It should be stressed, however, that the plan of the MH I/II apsidal House 55 is fragmentary making comparison between different parts of the house difficult.

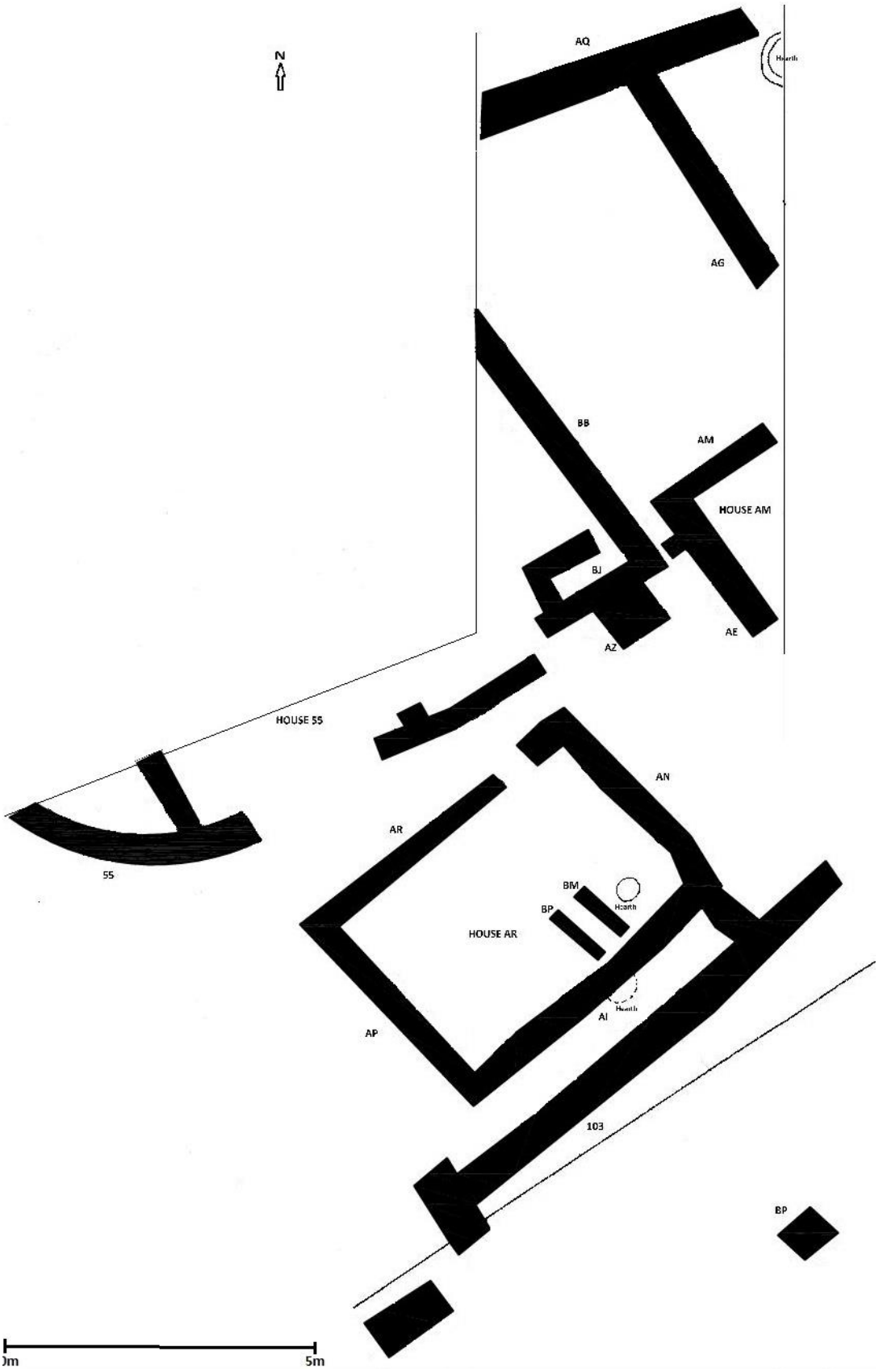

Fig. 12: Area DE, Walls BM and BP, House AR, House 55, Room AM (after original plans, Lerna archive, ASCSA, courtesy C. Zerner, DE plan 1).

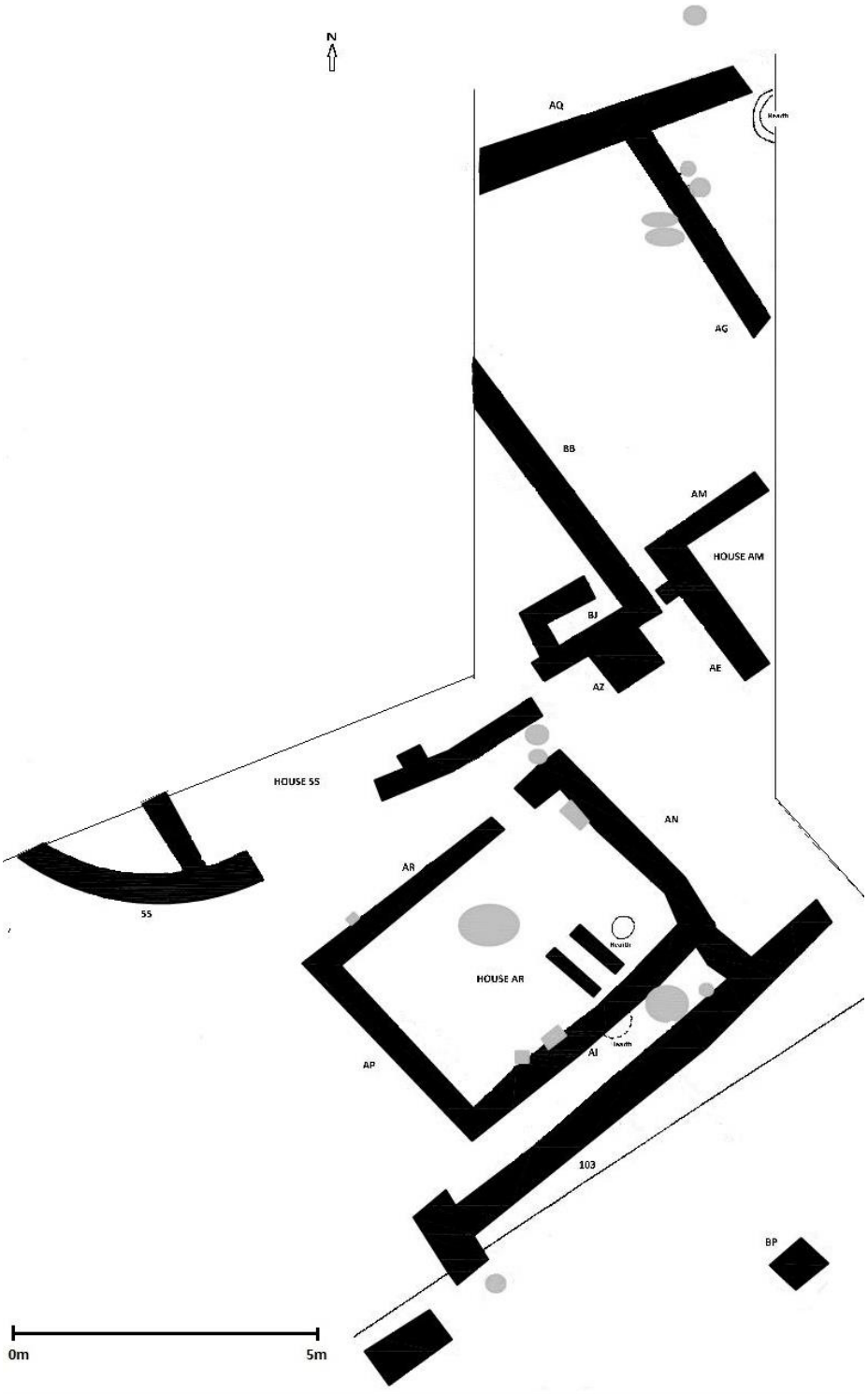

Fig. 13: Area DE, Walls BM and BP, House AR, House 55, Room AM. In grey contemporary and later graves (after original plans, Lerna archive, ASCSA, courtesy C. Zerner, DE plan 1).

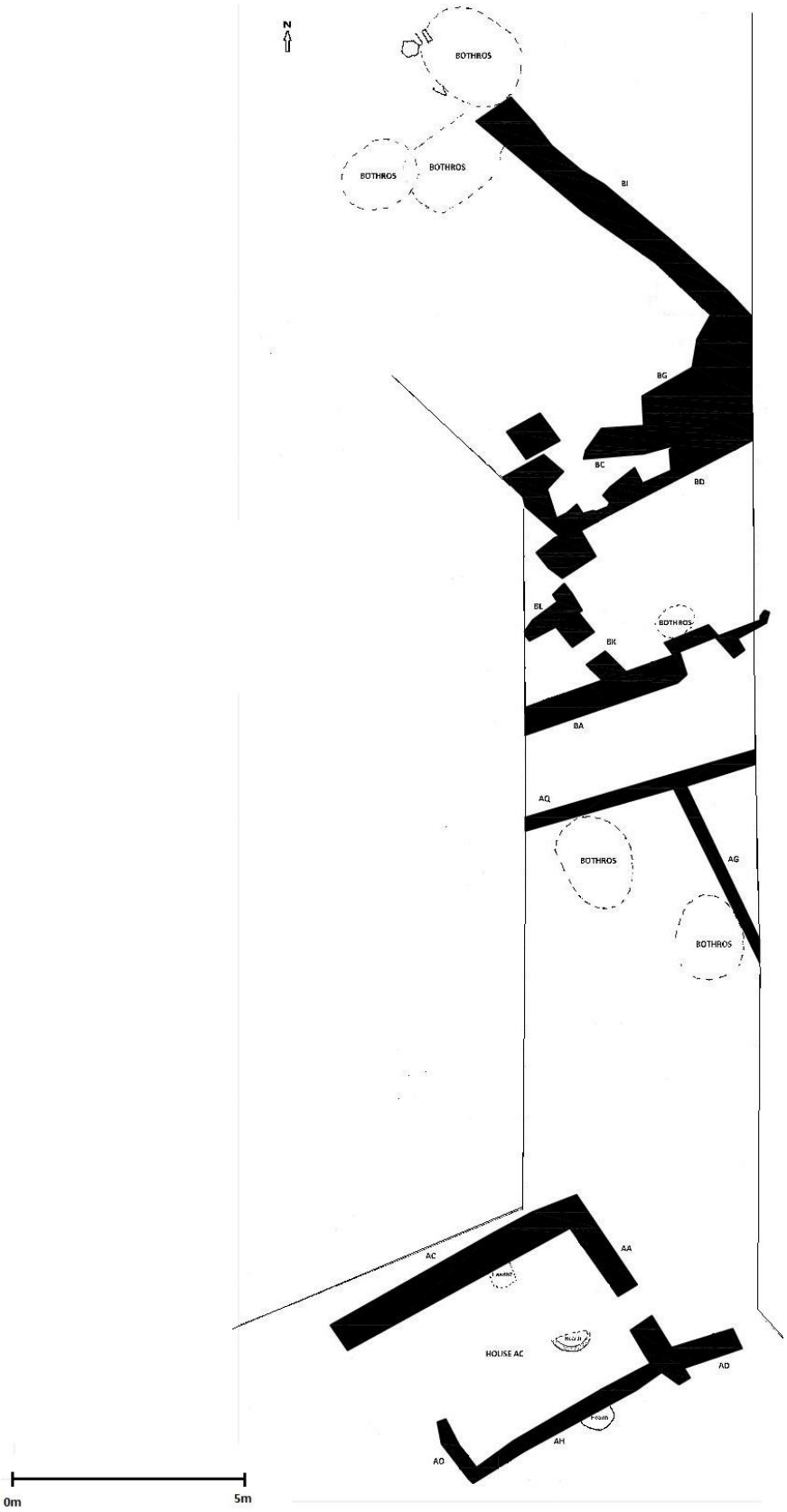

Fig. 14: Area DE, House AC, Walls BA, BK, BL, BC, BG, AQ, AG (after original plans, Lerna archive, ASCSA, courtesy C. Zerner, DE plan 2).

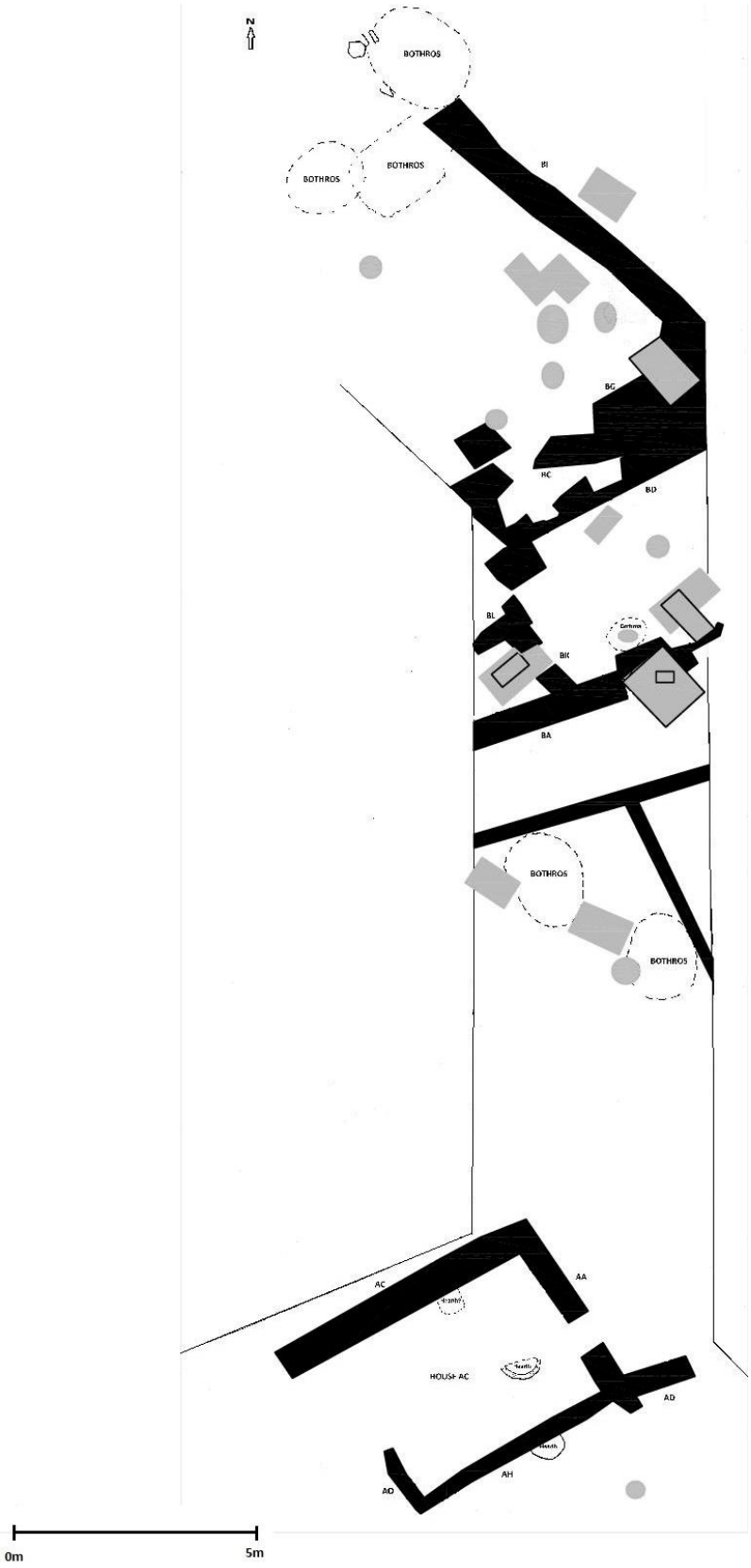

Fig. 15: Area DE, House AC, Walls BA, BK, BL, BC, BG, AQ, AG. In grey contemporary and later graves (after original plans, Lerna archive, ASCSA, courtesy C. Zerner, DE plan 2).

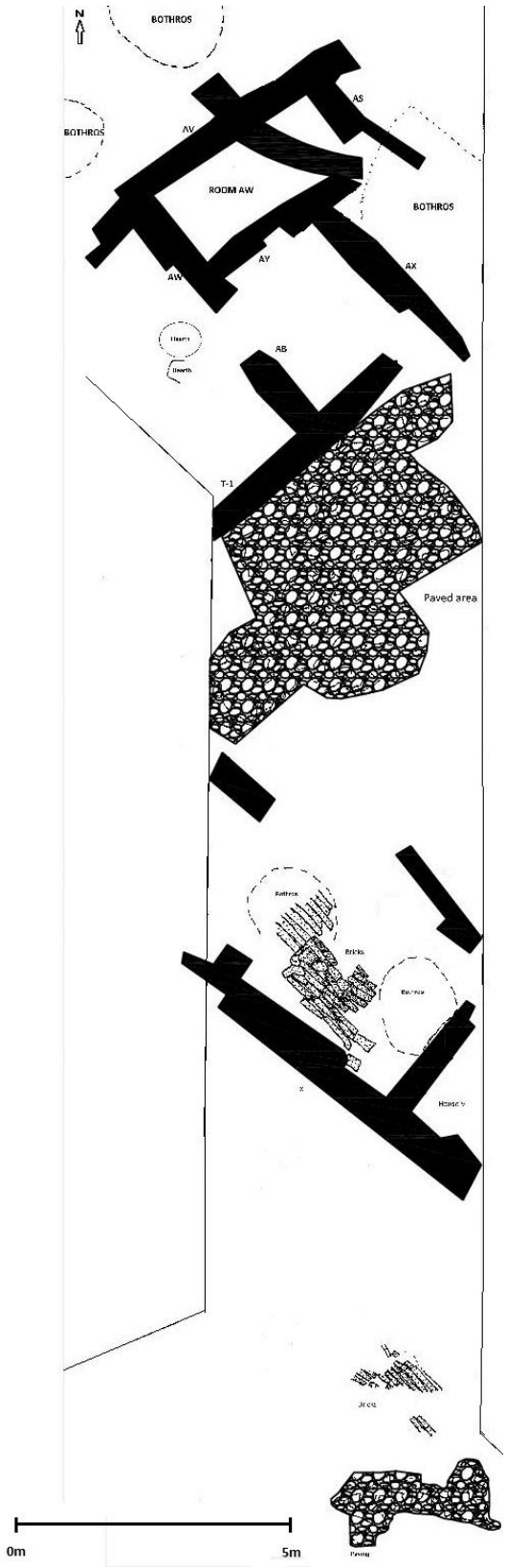

Fig. 16: Area DE, Room AW, House V (after original plans, Lerna archive, ASCSA, courtesy C. Zerner, DE plan 3).

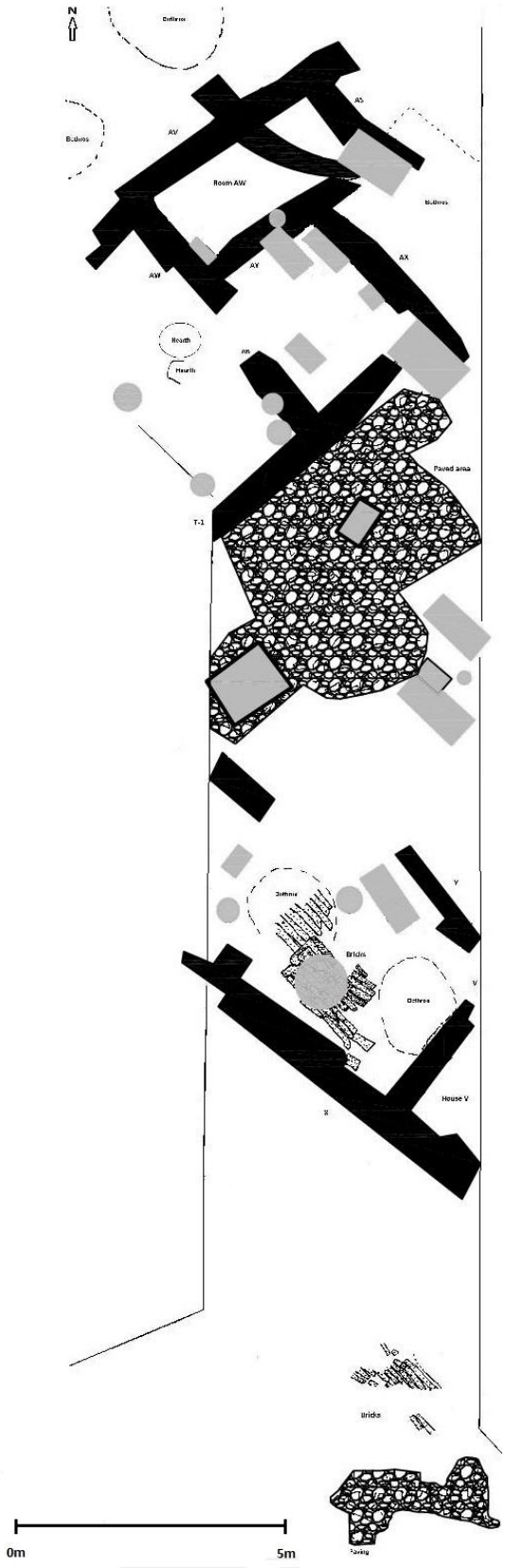

Fig. 17: Area DE, Room AW, House V. In grey graves opened after the abandonment of the houses (after original plans, Lerna archive, ASCSA, courtesy C. Zerner, DE plan 3).

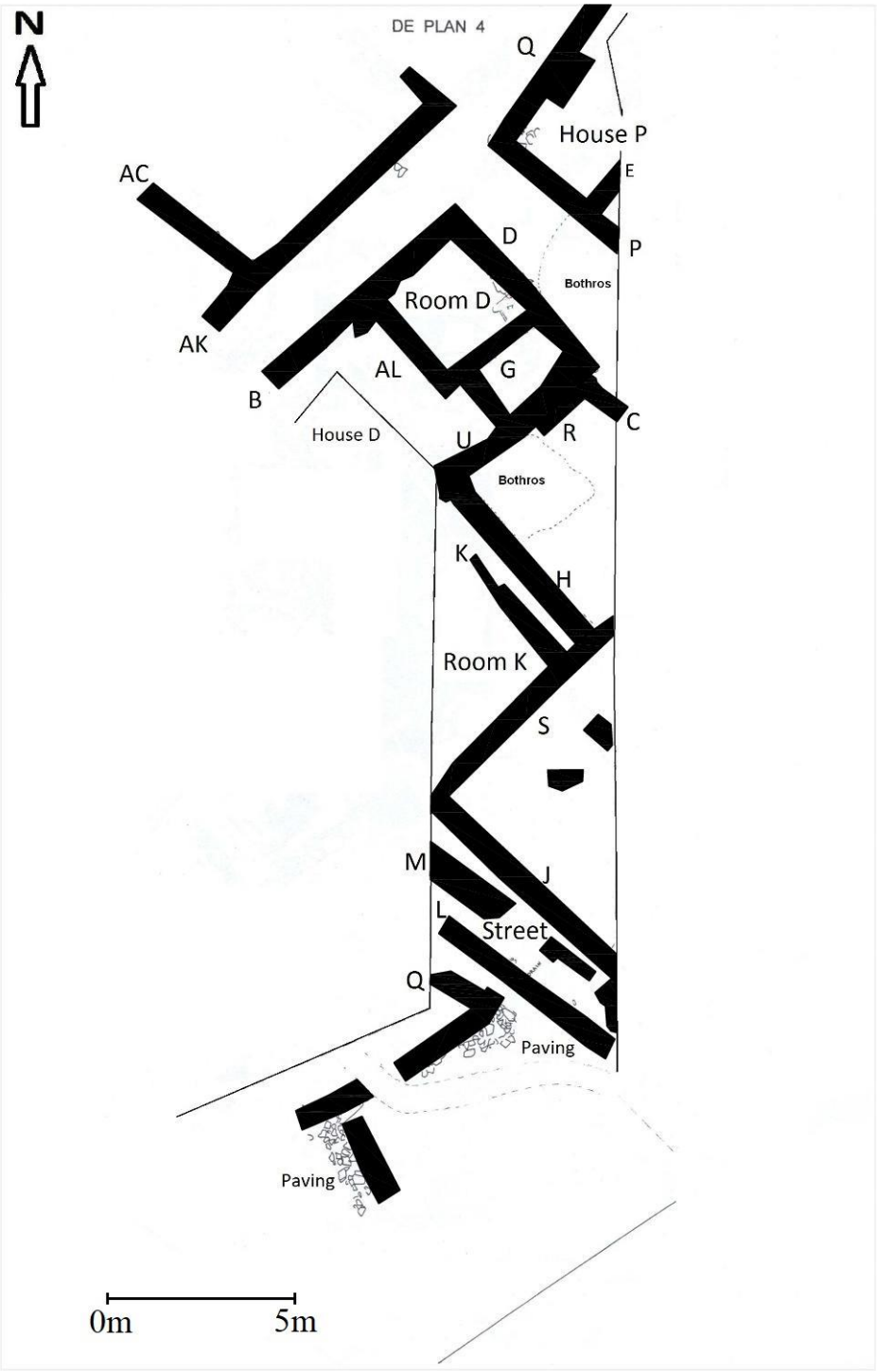

Fig. 18: Area DE, House complex D, House P (after original plans, Lerna archive, ASCSA, courtesy C. Zerner, DE plan 4).

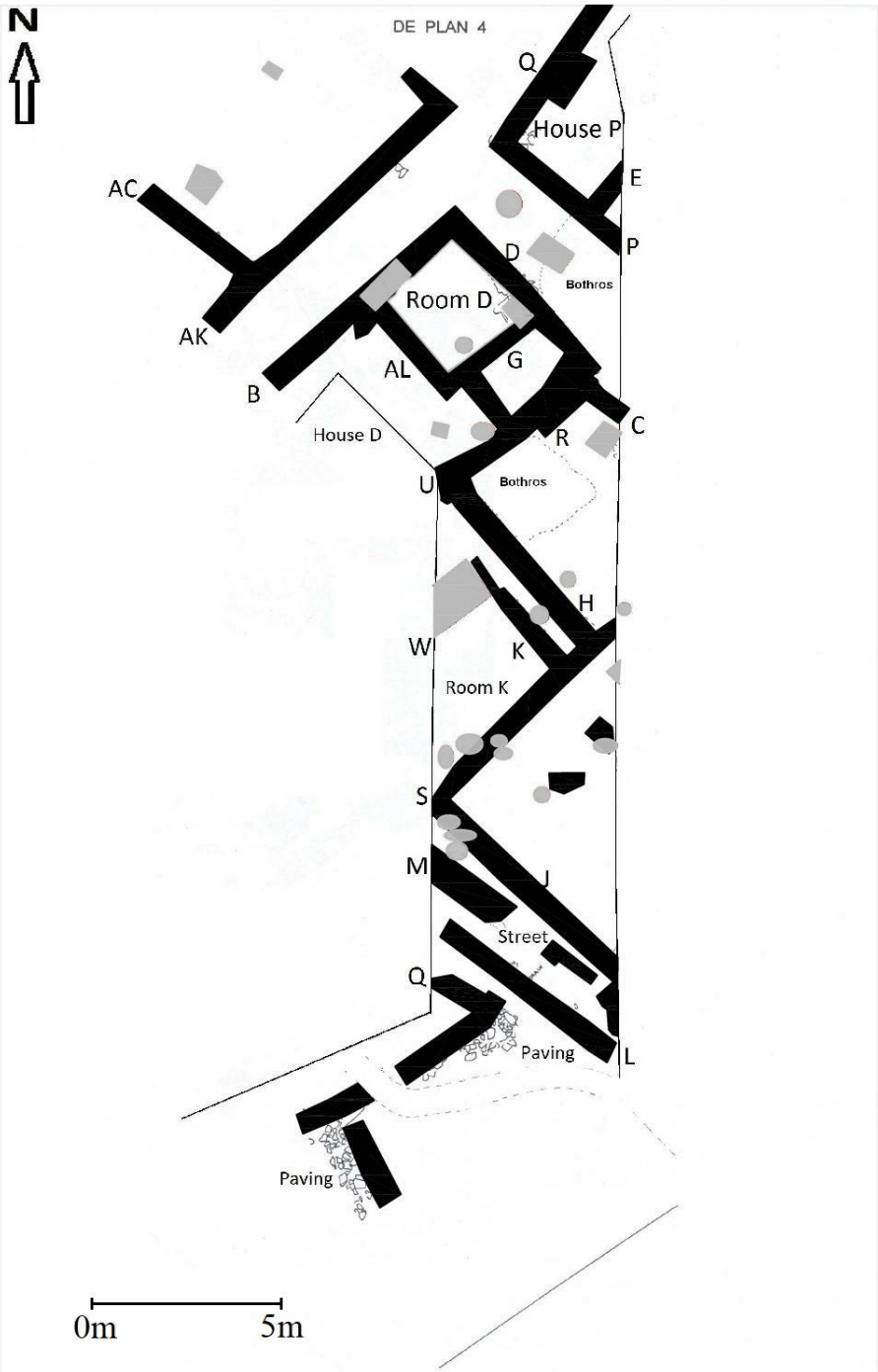

Fig. 19: Area DE, House complex D, House P. In grey graves opened after the abandonment of the houses (after original plans, Lerna archive, ASCSA, courtesy C. Zerner, DE plan 4).

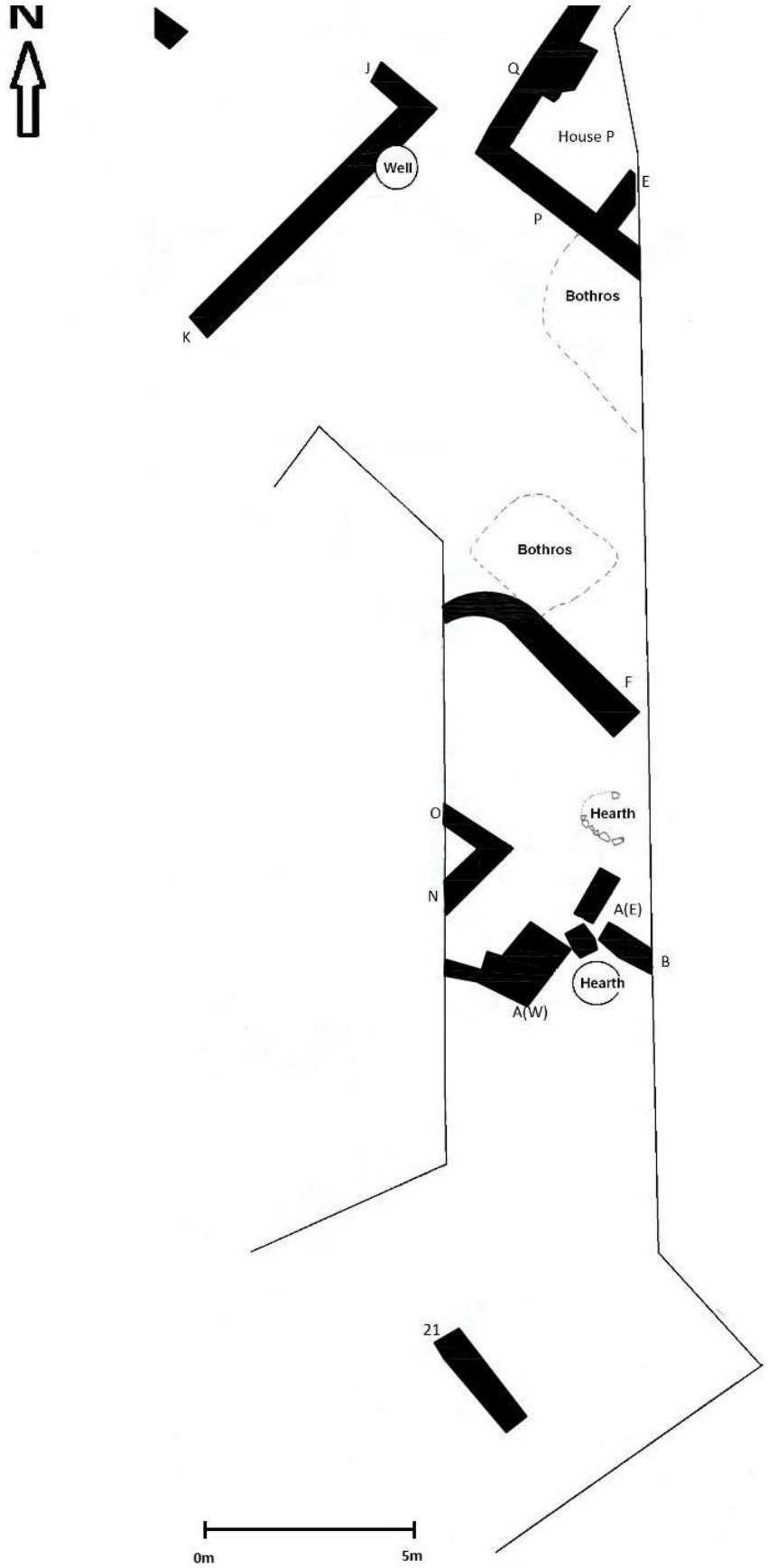

Fig. 20: Area DE, Walls N, A, F, O (after original plans, Lerna archive, ASCSA, courtesy C. Zerner, DE plan 5).

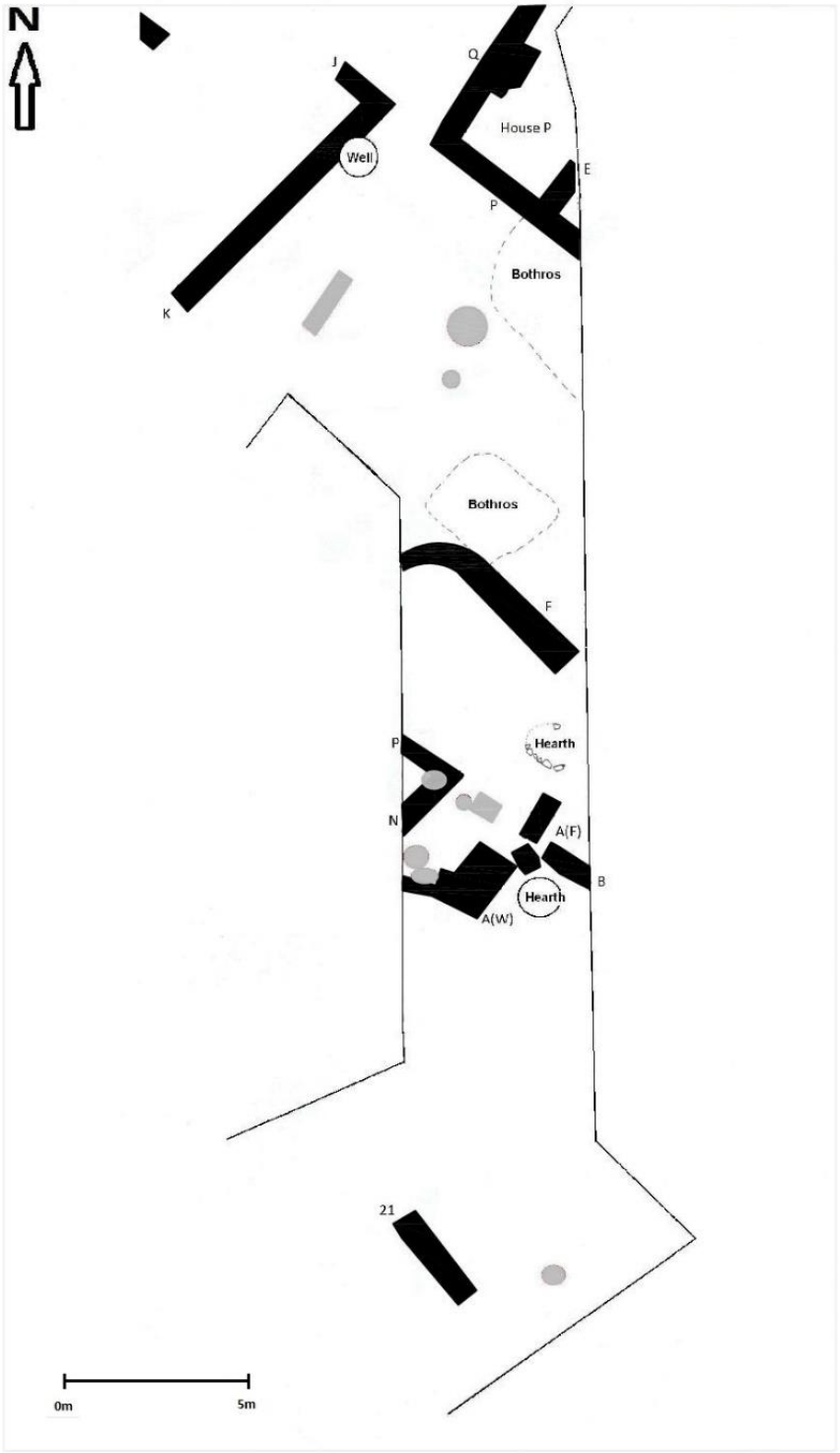

Fig.21: Area DE, Walls N, A, F, O. In grey SGE graves (after original plans, Lerna archive, ASCSA, courtesy C. Zerner, DE plan 5).

AREA D

Area or trench D is situated at the NE of the main excavation area. It was 14m long and 10m wide and it was connected with the main area with trench DE (Caskey 1954, 7; 1956, 152; Zerner 1978, 6). Here, a very clear stratigraphy, especially for the early phases, has been preserved. In total, 13 EH-MH habitation levels existed.

- During the transitional EH III/MH I period, House of the Pithos and House or Wall BI were built in the east part of area D (Fig. 22). Both houses have been partially excavated and their complete plan is unknown. Although contemporary graves have not been found, two skeletal fragments of an infant are associated with the House of the Pithos (Zerner, personal comm.) and may indicate the existence of a burial in the house.
- During the early part of the MH I period, the House of the Postholes was built upon the destroyed House of the Pithos (Fig. 23). Again, the plan of the house is fragmentary. No associated tombs have been found.
- During the middle part of the MH I period, House BS, a rectangular room, replaced the House of the Postholes. Wall BI was still in use and it was incorporated in a larger complex resembling the house complex in area BE. House F was built at the NE corner of the excavated area (Fig. 24). Only a small part of it has been excavated. No graves date from the middle part of the MH I period.
- During the later part of the MH I period, House BJ, a rectangular room, was built partly upon the burnt House BS (Fig. 25). One grave[23] may have been contemporary with this house.
- During the MH II period, House BD was built partly over the burnt House BJ and House BC was erected in the NE part of the area (Fig. 26). Both houses are actually parts of rectangular rooms, which have been partially excavated. Some graves associated with House BD may have been contemporary with the house or, more probably, they were opened in a 'graveyard' area after the house was destroyed by fire (D16: pit, infant; D17: jar, child; D18: pit, male; D19: pit, neonate; D21: pit, infant; D22: pit, male). One grave was opened upon the burnt House BC (D1) (Fig. 27).

[23] Grave D24, which was not included in Blackburn's study (C. Zerner personal communication)

- During the late part of the MH II period and the beginning of the MH III period, House AH (Rooms AH, AI, BF) was built upon the earlier houses and tombs, covering the north part of area D (Fig. 28). The house was rebuilt several times, even after it was burnt once. Its complete plan is unknown. No graves are associated with the period of use of this house. When it was abandoned, a layer of gravel was lay upon the burnt debris of Room AH and few graves were opened in the area east of the Room (D20, D14, D15?) (Fig. 29, Fig. 30).
- During the MH III period, House R (Rooms R, N, Y, AL) was erected over House AH and the tombs that post-dated it (Fig. 31). The plan of the house is fragmentary. No graves contemporary with the house have been found. When the house was destroyed by fire, tombs were opened upon its ruins (D2, D3, D4, D5, D7, D8, D9, D11, D15?). The graves that postdate this house were opened mainly over the west part of the house, in the area of Room AL (D5, D7, D8, D9, D11) rather than upon Room R in the east (D3, D15?) and Room Y in the centre (D4) (Fig. 32).
- Finally, Walls Y2 and M were built during the LH I period (Fig. 33). The only grave that was associated with these walls postdates their destruction (D2) (Fig. 34).

Once more, little is known about the special use of particular rooms and spaces in this area. Nevertheless, the 'graveyard' associated with House BD resembles the burial use of the courtyard of House complex 98A, in area BE, after the house was abandoned. Although House BD is far from complete, it can be suggested that specific areas were temporally preserved for burial use, after houses were abandoned.

Moving a little later, C. Zerner (personal comm.) has suggested that the gravel layer over the MH II/III Room AH may have been connected with the construction of a tumulus in the area east of House AH. Graves D14, D15, D20 and a curved wall may have been components of that tumulus (Fig. 30). However, the chronological relation between the various features (e.g. houses, graves, wall) is very unclear and the existence of a MH III tumulus remains a hypothesis. The tumulus hypothesis is also weakened by the construction of the MH III House R over it and over the ruins of House AH. Nevertheless, the gravel may have been lay in order to define and to organise a place which was used as a burial ground for some time.

Finally, it is difficult to understand the different intensity of burial use over the different rooms of the MH III House R. The function of these rooms is unknown as the house has not been published yet.

It is worth noting that after the MH III period graves were opened over the ruins of what seems to be the main areas of all the houses excavated so far, for example House 100, House V, House D, House AW, House R. However, further spatial observations are not possible not only because the plans of the houses are incomplete but also because the use of different rooms has not been studied yet.

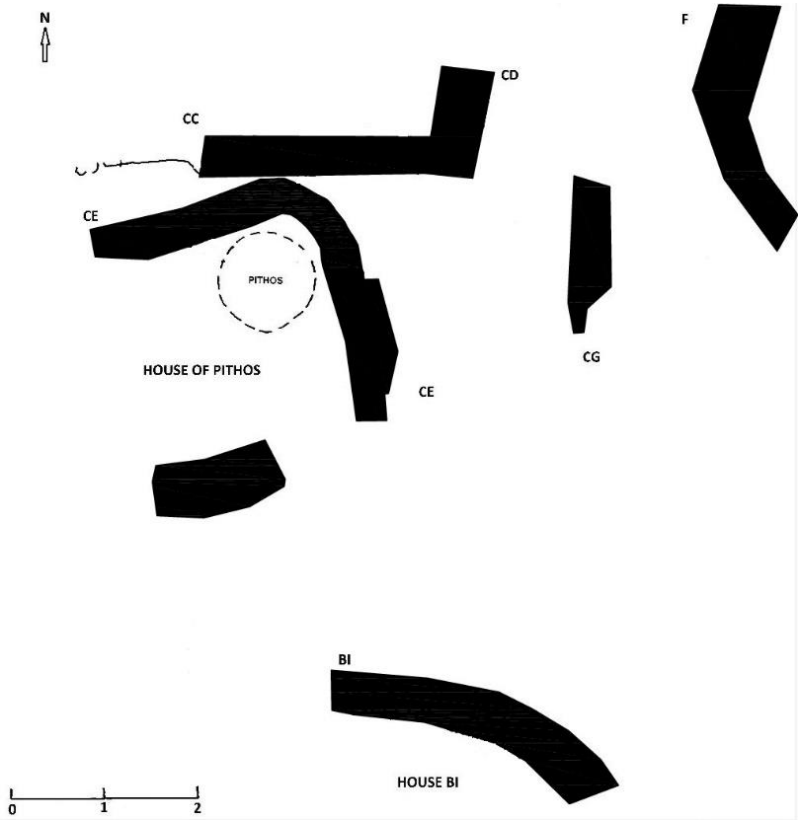

Fig. 22: Area D, east part, House of the Pithos and House or Wall BI (after original plans, Lerna archive, ASCSA, courtesy C. Zerner, D plan 1).

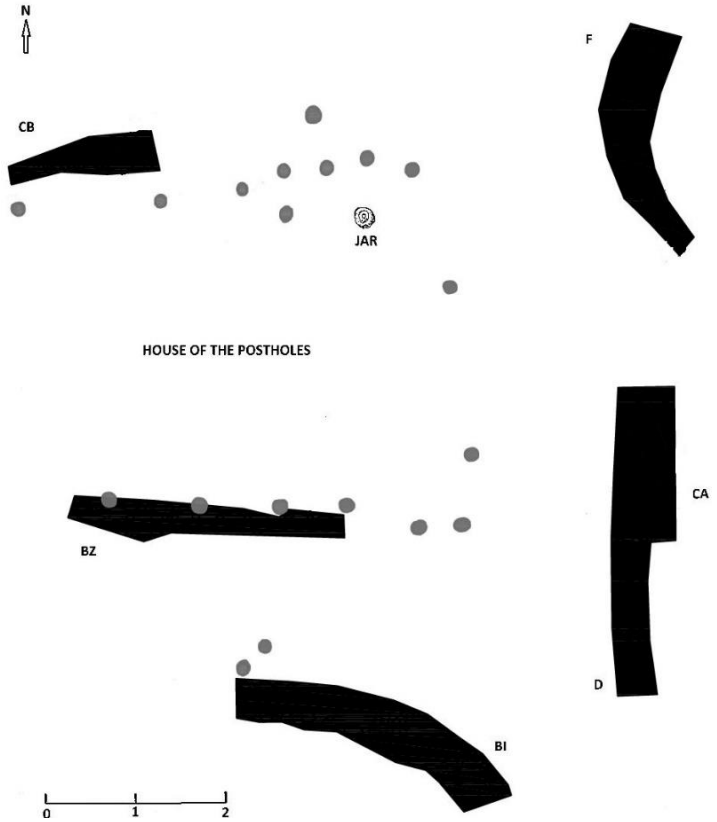

Fig. 23: Area D, east part, House of the Postholes (after original plans, Lerna archive, ASCSA, courtesy C. Zerner, D plan 2).

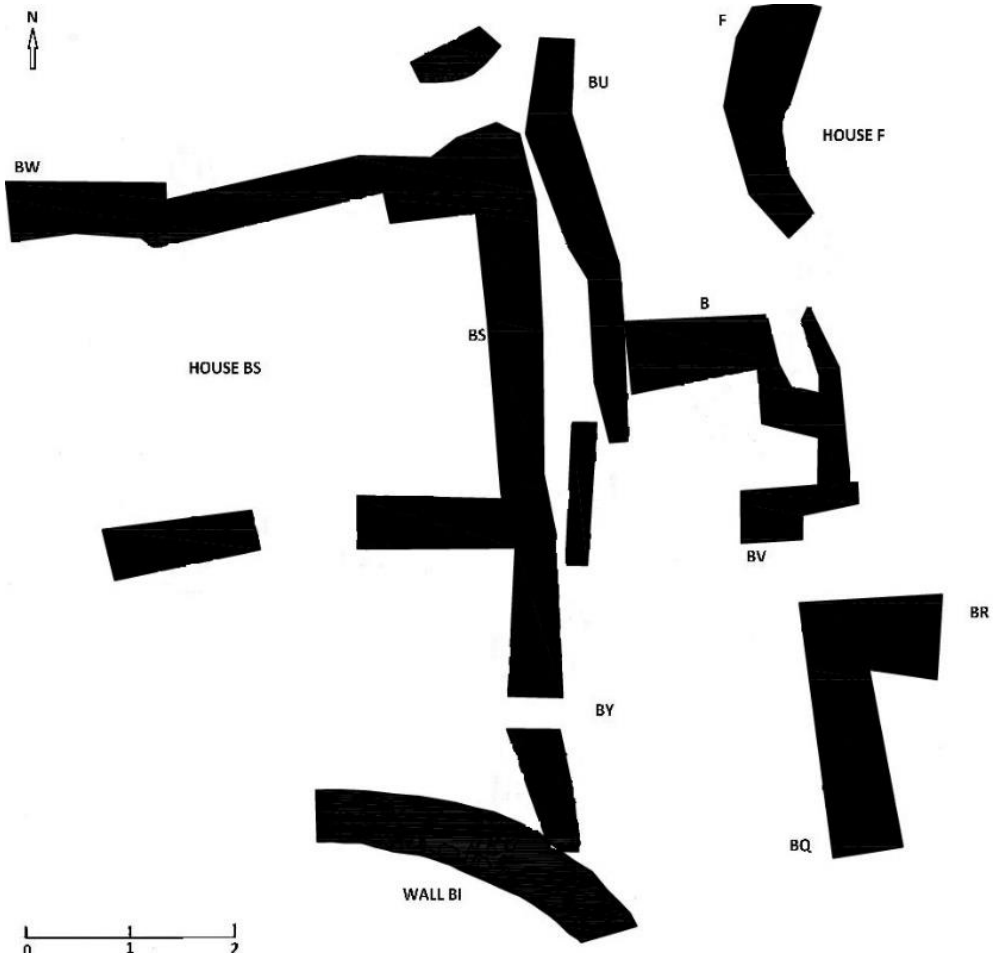

Fig. 24: Area D, east part, House BS, House F and Wall BI (after original plans, Lerna archive, ASCSA, courtesy C. Zerner, D plan 3).

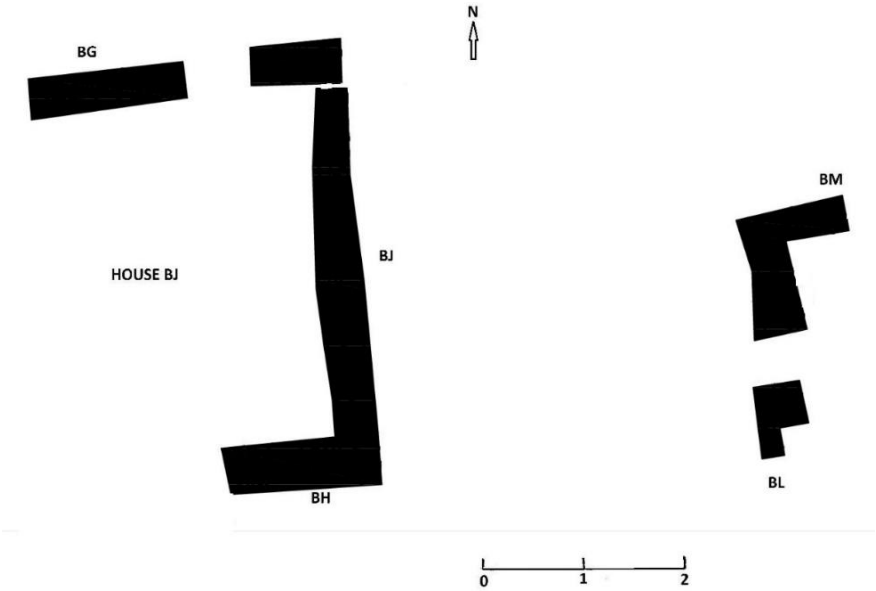

Fig. 25: Area D, east part, House BJ (after original plans, Lerna archive, ASCSA, courtesy C. Zerner, D plan 5).

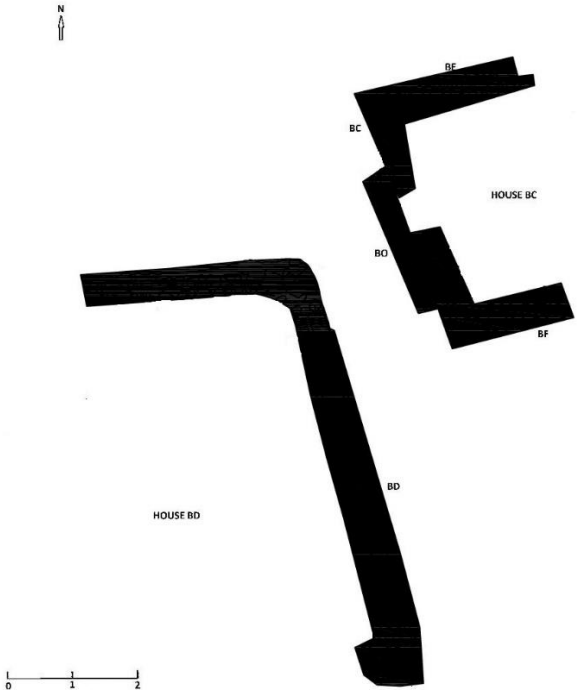

Fig. 26: Area D, east part, Houses BD and BC (after original plans, Lerna archive, ASCSA, courtesy C. Zerner, D plan 6).

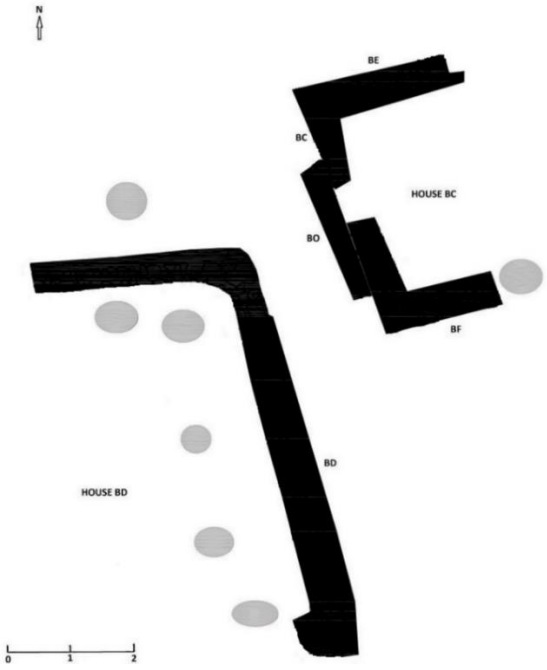

Fig. 27: Area D, east part, Houses BD and BC. In grey graves opened after the abandonment of the houses (After original plans, Lerna archive, ASCSA, courtesyC. Zerner, D plan 6).

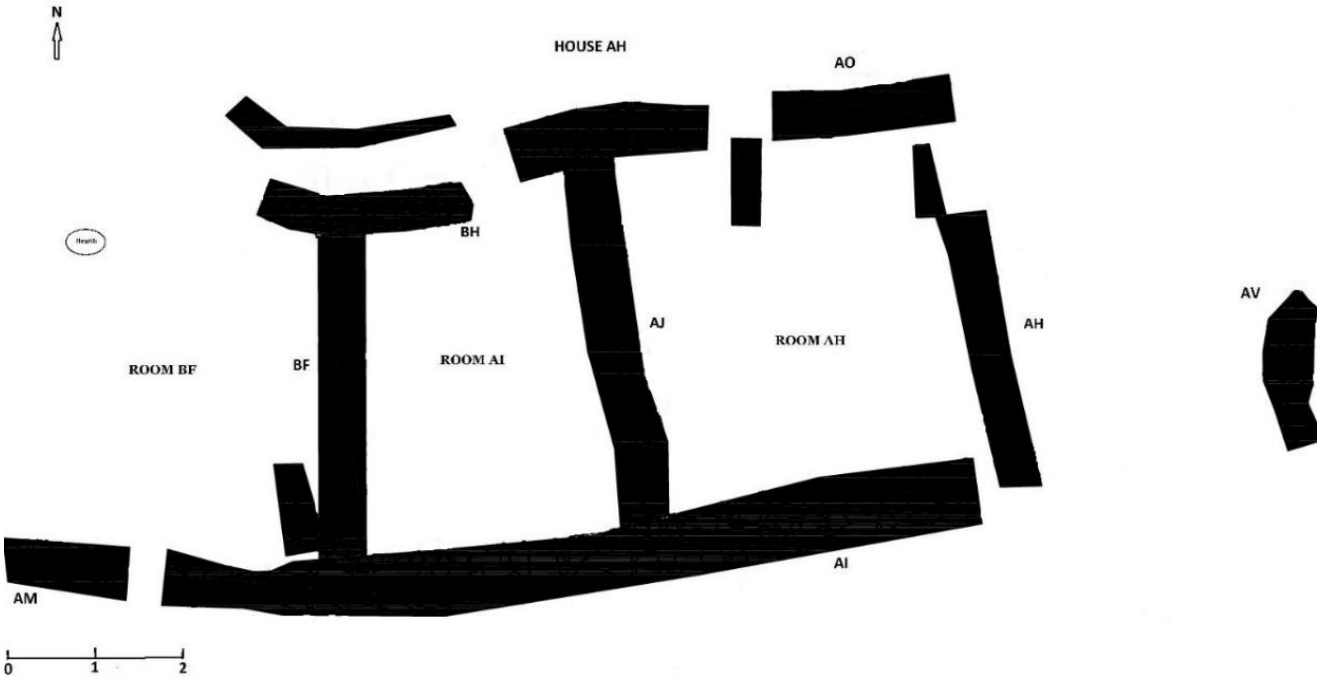

Fig. 28: Area D, north part, House AH (after original plans, Lerna archive, ASCSA, courtesy C. Zerner, D plan 7).

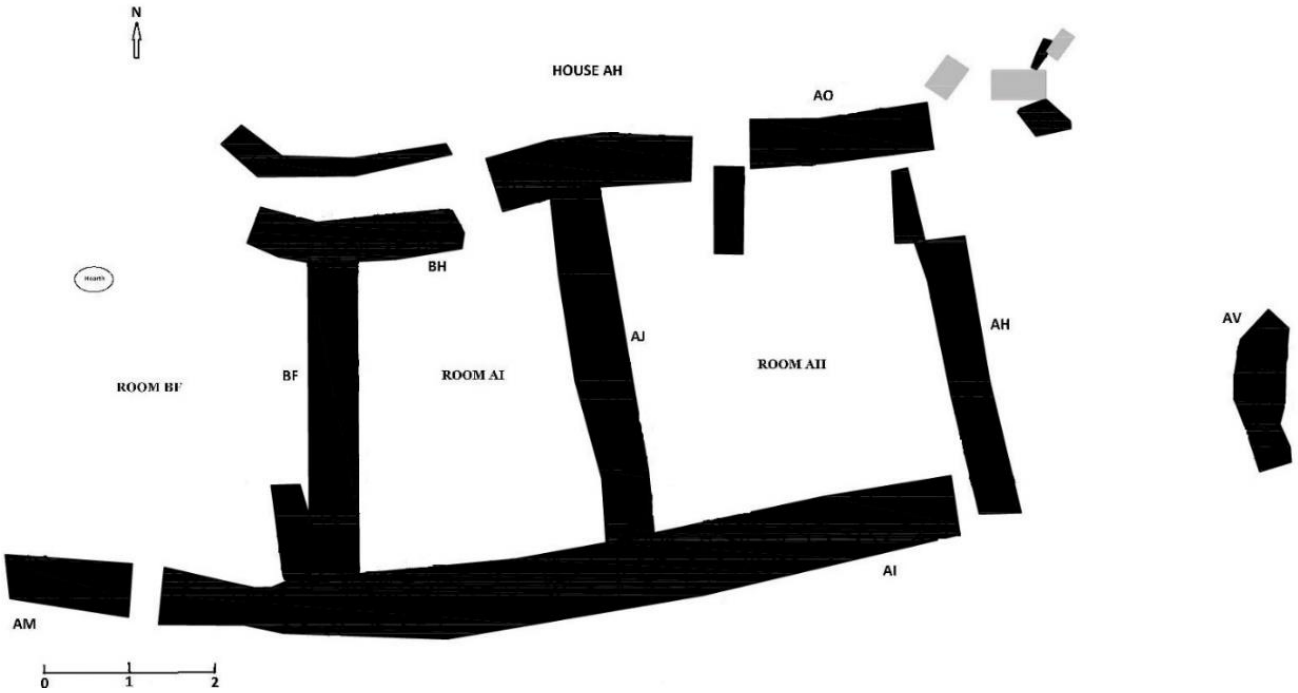

Fig. 29: Area D, north part, House AH. In grey graves opened after the abandonment of the house (after original plans, Lerna archive, ASCSA, courtesy C. Zerner, D plan 7).

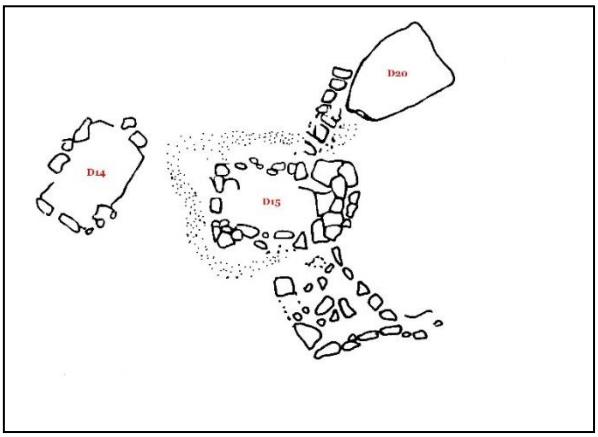

Fig. 30: Area D, detail of graves later than House AH (after original plans, Lerna archive, ASCSA, courtesy C. Zerner, D plan 8).

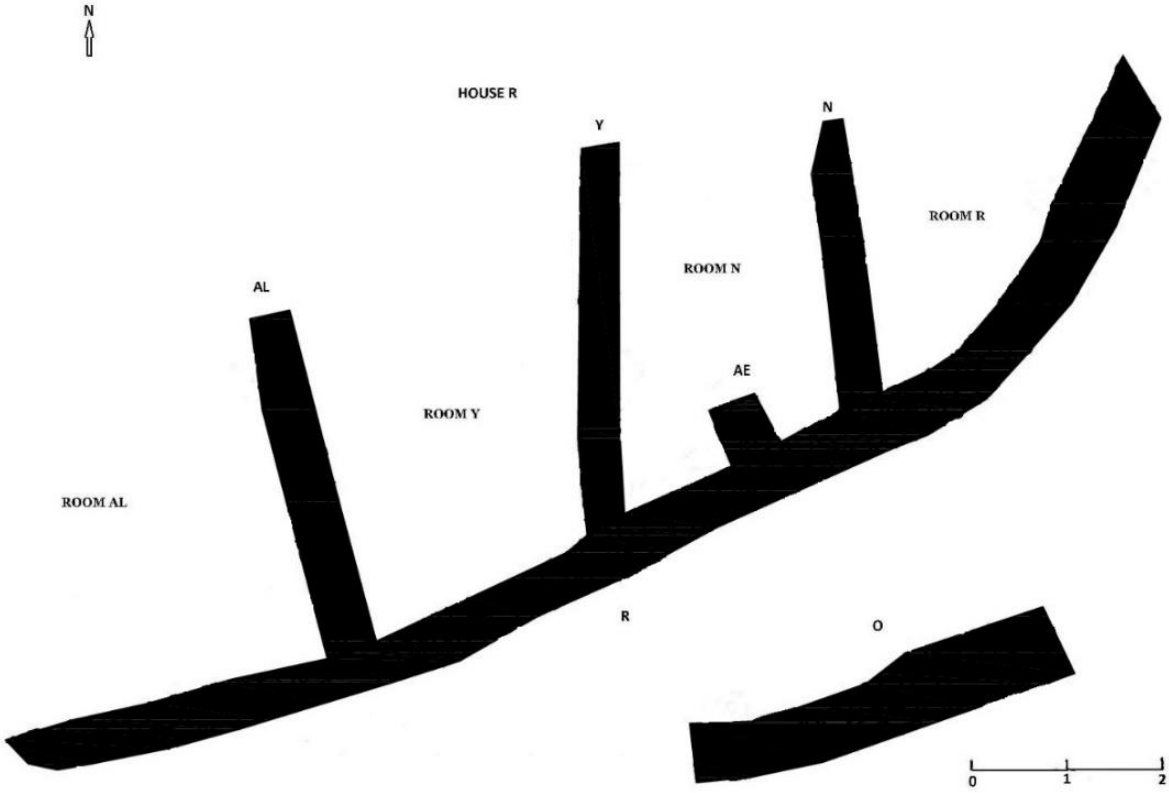

Fig. 31: Area D, north part, House R (after original plans, Lerna archive, ASCSA, courtesy C. Zerner, D plan 9).

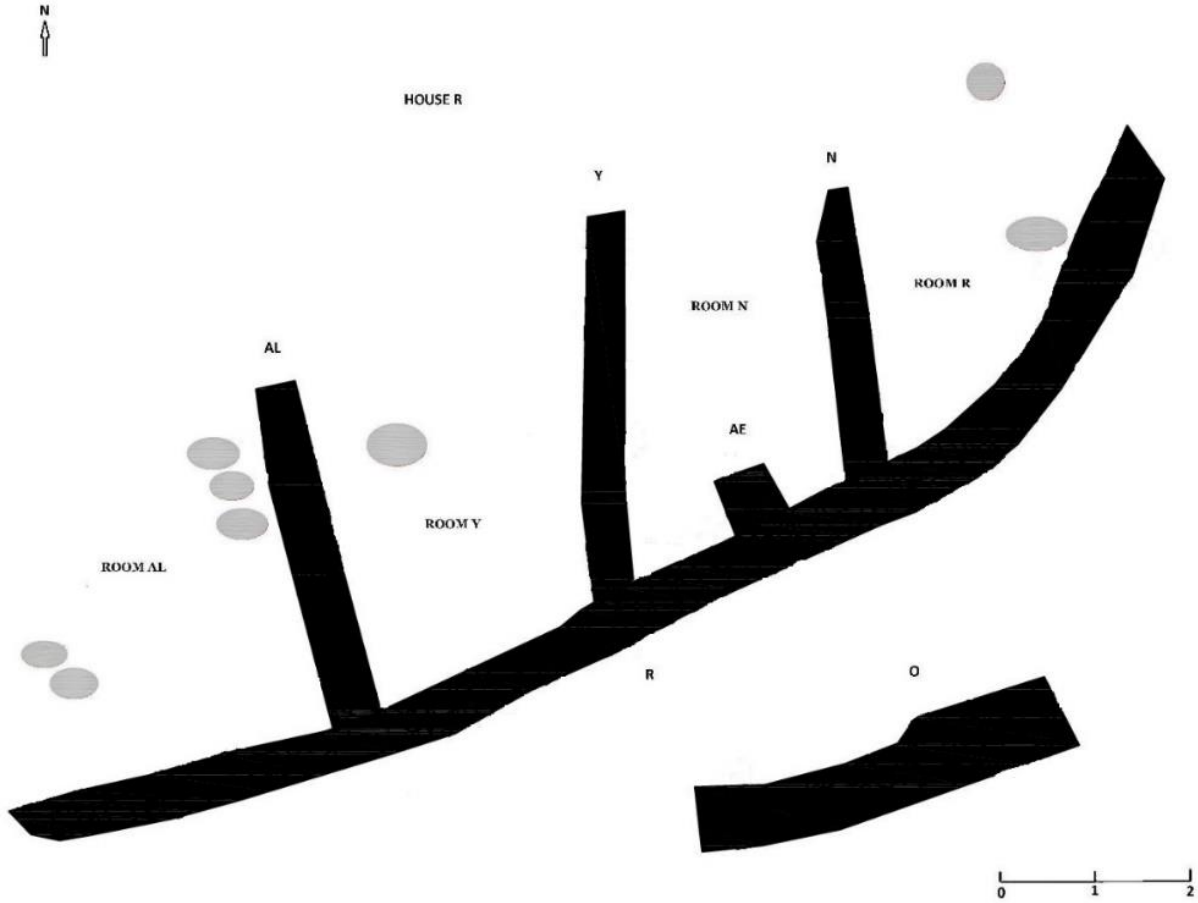

Fig. 32: Area D, north part, House R. In grey graves opened after the abandonment of the house (after original plans, Lerna archive, ASCSA, courtesy C. Zerner, D plan 9).

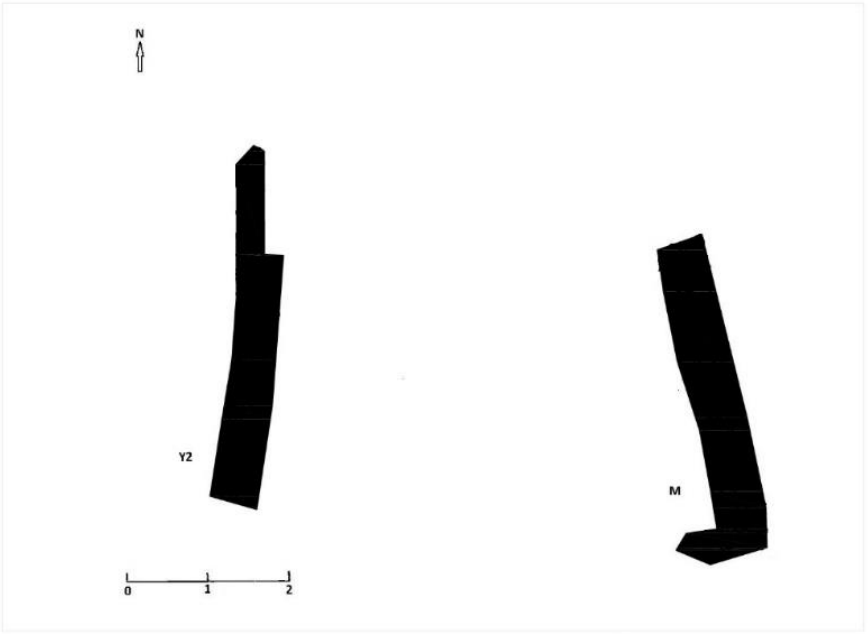

Fig. 33: Area D, Walls Y2, M (after original plans, Lerna archive, ASCSA, courtesy C. Zerner, D plan 10).

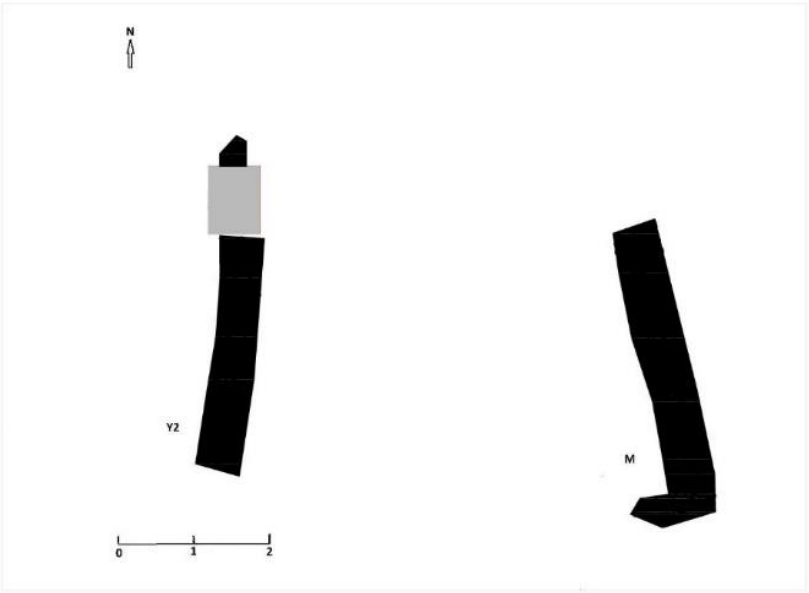

Fig. 34: Area D, Walls Y2, M. In grey grave later than the walls (after original plans, Lerna archive, ASCSA, courtesy C. Zerner, D plan 10).

We see, therefore, that in three important areas of the settlement a new practice was introduced during the late MH I -MH II period: graves were opened upon ruins of earlier houses and these graves were later overbuilt by new houses. This pattern is quite different from what happened in Argos (N sector/ North part of the lower town area), where the settlement expanded during the MH II-III period over a part of the earlier burial ground (Touchais 1998) or in Barbouna in Asine, where graves were opened during the MH III-LH I period over abandoned houses and they were not overbuilt by other late MH or early LH houses (Nordquist 1987, 98) (see chapter 3, section 2; chapter 2, section 10). In Lerna there were successive horizons of house construction, house destruction and abandonment, and construction of graves.[24]

Although we can detect some house construction horizons that apply to all three areas, the same does not seem to hold true for the house destruction horizons and, consequently, for the grave construction horizons (Tables 6, 7, 8). The abandonment of many houses during the late part of the MH III period and the transition from the MH III to the LH I period should rather been seen as a symptom of the gradual abandonment of the whole settlement. In general, the transition between habitation and burial use of space seems to follow a quite different pattern in each area or, to be more accurate, in each house. This pattern is what we would expect to happen in a settlement which was still occupied when the burials took place. It would have been strange if all houses were abandoned and re-occupied at exactly the same time, unless a disaster took place and the settlement was abandoned for some time. But this is not the case in MH Lerna. Of course some times more than one abandoned houses in the settlement were used for burials during the same time span but in general, the life history of every house is unique. This picture changes towards the end of the settlement use; the existence of a few LH I stray walls and many tombs indicates that the settlement as a whole, or at least the part excavated so far, was primarily used as burial ground, before it was abandoned during the LH II period.

[24] The house construction and destruction episodes were confirmed by the parallel analysis of the houses, carried out as a separate sub-project of the MHAP by S. Voutsaki and C. Zerner, to be published separately.

Date	Area BE	Area DE	Area D
EH III/MH I	House 68A, House 99E	Walls BM, BP	House of the Pithos, Wall BI
Early MH I			House of the Postholes
Middle MH I			House BS, Wall BI, House F
Late MH I	House complex 98A	House 55, Room AR, Room AM (or house complex)	House BJ
MH II		House AC, terrace walls	House BD, house BC
MH II/MH III	House 100		House AH
Early MH III		House V, Room AW	
MH III			House R
Late MH III-MH III/LH I	Room 3, Room 5	House D, House P	
LH I		Walls N, A, F, O	Walls Y2, M

Table 6: House construction horizons

Date	Area BE	Area DE	Area D
MH I/II or early MH II		House AR	
Middle MH II	House complex 98A		House BD
Late MH II		House AC, terrace walls	
Early MH III			House AH
Middle-late MH III		House V, Room AW	
Late MH III	House 100		
Late MH III-MH III/LH I			House R
MH III/LH I		House D	
Early LH I	Room 3, Room 5		

Table 7: House destruction horizons

Date	Area BE	Area DE	Area D
Early MH II		+	
Middle-late MH II			+
Middle MH II- MH II/III	+		
MH II/III		+	
Early-middle(?) MH III			+
Late MH III	+	+	
MH III/LH I			+
LH I early		+	
LH I late-LH IIA	+		

Table 8: Grave construction horizons

It becomes therefore obvious that the general characterization of all burials at Lerna as intramural is neither sufficient nor accurate, as it fails to describe the varying spatial relation between the houses, and the settlement as a whole, and the burials. I would like therefore to suggest that the cemetery history developed in three stages (Milka in Voutsaki et al. 2006, 107; Milka 2010, 352):

1. EH/MH-MH I early: typical intramural burials. Few individuals were buried among or inside houses. These were mainly neonates and infants but a few adults also existed (e.g. DE71-72).

2. MH I late-MH III/LH I: the use of space moves back and forth between habitation and burial. The burials can be characterised intramural as they were situated inside the settlement. However, they were mainly placed upon abandoned houses rather than under the floors or in between houses still in use. The few contemporary with the houses graves belonged to neonates (e.g. BE28, DE24, DE38), while both adults and sub-adults were buried upon the ruined houses.

3. LH I-LH IIA: extramural cemetery established upon abandoned houses. During this late phases no substantial architectural remains have been found so far. The function of some LH I walls, on the other hand, is problematic as the uppermost layers of the site were eroded. Nevertheless, the construction of the two Shaft Graves during the LH I late- LH IIA period reinforces the hypothesis that the site was exclusive used as burial place during the Shaft Grave Era (at least the part excavated). Shaft graves are usually found outside the settled area, on formal extramural cemeteries or upon

abandoned settlements, for example in Argos (Protonotariou-Deilaki 1980), in Mycenae (Mylonas 1973) and in Barbouna (Nordquist 1987).[25]

Furthermore, a group of nine MH III-LH I graves found at the village of Myloi (see chapter 1.5), approximately 400m north of Lerna (Papachristodoulou I., 1967, 182; Dietz & Divari-Valakou, 1990) and a further LH I-II cist grave reported also from the village of Myloi (Protonotariou-Deilaki, 1961, 3-4, 6-7) indicate the existence of an extramural cemetery, located in a previously not settled area.

Moreover, approximately 300m south of Lerna, a single LH I extramural burial was uncovered[26] (Dietz & Divari-Valakou, 1990, 45, 62). The presence of this grave may indicate the existence of a third extramural burial ground.

1.2.4 Spatial organisation

The spatial organisation of the graves in Lerna was in a large extent defined by the spatial organisation of the settlement, especially until the transitional MH III/LH I period, when the tombs were closely related with particular houses. Two important parameters for the study of the spatial pattern will be analysed here; these are grave orientation and grave groups.

a. Orientation of the graves

The main question that will be addressed here is whether the graves follow the orientation of contemporary or previous house walls and whether we observe change through time. This information will be later used to check the coherence of burial groups.

The orientation of 184 (83,6%) graves has been recorded, while the orientation of the remaining 36 (16,4%) graves is unknown. These last graves were mainly pits or burials consisting of stray bones. Generally, the vast majority of the graves were orientated towards the cardinal points; 85 (38,7%) tombs were orientated to the N-S axis and 62 (28,2%) to the E-W axis (Chart 1). However, the frequency of each orientation was not stable throughout the period under study (Table 9).

[25] However, in Kollona in Aigina the Shaft Grave was opened in the settled area (Kilian-Dirlmeier 1997).

[26] Excavated by Chr. Piteros.

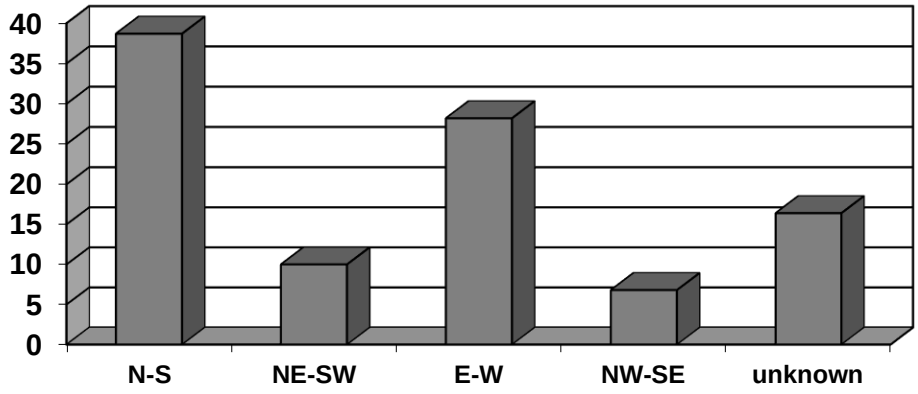

Chart 1: frequency of each grave orientation

MH I-MH II: during these early phases the E-W and N-S orientations were more usual, but graves were also quite often orientated to the NE-SW or to the NW-SE (Table 9). MH I and MH II graves were dug inside the settled area between houses or, more often, upon abandoned houses. It is thus very possible that they have been aligned with nearby walls, streets and/ or other constructions and with other graves (Blackburn, 1971, 20). Indeed, during the MH I period the graves opened in area DE, where detailed plans are available, were systematically aligned with contemporary or earlier walls. The same holds true for MH II graves opened in areas BE, DE and D (Table 10). Only exceptionally was a grave not aligned to any of the architectural remains shown on the plans.

MH III: during the MH III period most of the graves were orientated to the N-S and to the E-W axis and at the same time the frequency of graves aligned to the NE-SW or to the NW-SE reduces (Table 9). The same restrictions as in the previous periods were still present, for example the presence of contemporary or earlier house walls or other constructions. The majority of the graves opened in areas BE, DE and D were still aligned to nearby walls (Table 10).

SGE: in these final phases of the cemetery use most of the graves continued to orientate to the cardinal points (Blackburn, 1971, 291) (Table 9). For the larger part of this phase, the graves were placed upon ruins of earlier houses. Nevertheless, they continued to align with earlier walls found at their vicinity (Table 10). It could be suggested that even when no contemporary houses existed it already had become a habit to orientate the tombs towards the directions/axis into which the houses were arranged for many years.

	N-S	NE-SW	E-W	NW-SE
MH I	9 32.1%	3 10.7%	6 21.4%	1 3.6%
MH II	15 27.3%	6 10.9%	17 30.9%	9 16.4%
MH III	27 58.7%	3 6.5%	13 28.3%	2 4.3%
SGE	31 40.3%	5 6.5%	25 32.5%	3 3.9%
TOTAL	**82** **37.3%**	**17** **7.7%**	**61** **27.7%**	**15** **6.8%**

Table 9: chronological distribution of each orientation

Grave No	Date	Orientation	Nearby wall
DE33	MH I	N-S	Wall AN, House AR
DE50	MH I	E-W	Wall AI, House AR
DE52	MH I	NE-SW	Wall AR, House AR
DE64	MH I	NW-SE	Wall 55, House 55
DE68	MH I	E-W	Wall AR, House AR
DE71-72	MH I	E-W	Wall AR, House AR
B21A	MH II	N-S	Wall 60, Room 45, House complex 98A
B28	MH II	E-W	Wall 47, House complex 98A
B30	MH II	N-S	Wall 46, Room 45, House complex 98A
BE22	MH II	N-S	Walls 46 and 60, Room 45, House complex 98A
BE23	MH II	NW-SE	Wall 47, House complex 98A
BE24	MH II	N-S	Walls 46 and 60, Room 45, House complex 98A
BE26	MH II	E-W	Wall 45, Room 45, House complex 98A
BE29	MH II	NW-SE	Wall 47, House complex 98A
BE31	MH II	E-W	Wall 47, House complex 98A
DE28	MH II	E-W	Wall AI, House AR
DE66	MH II	N-S	Wall AG, House 55
DE55	MH II	N-S	Wall BI
DE65	MH II	N-S	Wall AG, House 55
DE69	MH II	E-W	Wall BA
D21	MH II	E-W	North wall of House BD
D1	MH II	E-W	Wall BF, House BC
D16	MH II	NW-SE	Wall BD, House BD
D17	MH II	E-W	South wall of House BD
D18	MH II	NW-SE	Wall BD, House BD
BE20	MH III	E-W	South wall of House 100
BE11	MH III	N-S	East wall of House 100

BE25	MH III	E-W	South wall of House 100
BE10	MH III	N-S	East wall of House 100
BE9	MH III	E-W	South wall of House 100
BE19	MH III	E-W	Wall 38
DE48	MH III	S-N	Wall AX, House V
DE51	MH III	E-W	Wall T-1, House V
DE53	MH III	E-W	Wall BA
DE40	MH III	N-S	Wall AX, House V
DE45	MH III	N-S	Wall AS, Room AW
DE24	MH III	N-S	Wall X, House V
DE32	MH III	N-S	Wall Y, House V
DE60	MH III	E-W	Wall BA
DE25	MH III	N-S	Wall AB, House V
D20	MH III	E-W	Walls BE and BF
D9	MH III	N-S	Wall AL, House R
BE6	MH III/LH I	E-W	South wall of House 100
BE5	MH III/LH I	E-W	South wall of House 100
BE16	MH III/LH I	N-S	East wall of House 100
DE46	MH III/LH I	N-S	Wall AB, House V
DE54	MH III/LH I	N-S	Wall AW, Room AW
DE15	MH III/LH I	E-W	Wall S, House D
DE26	MH III/LH I	E-W	Wall G, Room D, House D
DE3	MH III/LH I	N-S	Wall N
D6	MH III/LH I	N-S	Wall AL, House R
D8	MH III/LH I	N-S	Wall AL, House R
D4	MH III/LH I	N-S	Wall AL, House R
BE14	LH I	E-W	South wall of House 100
BE13	LH I	E-W	South wall of House 100
BE3	LH I	E-W	Wall 38
BE4	LH I	N-S	Walls 14, 15
BE8	LH I	N-S	Walls 8, 2
BE15	LH I	E-W	South wall of House 100
BE2	LH I	E-W	Wall 19
DE13	LH I	E-W	Wall S, House D
DE7	LH I	E-W	Wall R, House D
DE9	LH I	N-S	Walls M and J, House D
DE10	LH I	E-W	Wall N
DE12	LH I	N-S	Wall H, House D
DE14	LH I	N-S	Walls K and H, House D
DE21	LH I	E-W	Wall S, House D
DE56	LH I	N-S	Wall AX
DE39	LH I	N-S	Wall D, House D
DE44	LH I	E-W	Wall B

Table 10: alignment of graves with contemporary or earlier nearby walls

We see therefore, that throughout the period there was a clear preference to align the graves towards the cardinal points but this preference was clearly influenced by the orientation of the house walls.

b. Grave groups

Some of the graves in Lerna were located close together and they clustered around free-standing houses. This spatial arrangement of the burials was already noticed during the excavations and the first publications of the finds. The main questions to be addressed here are: were the grave groups spatially and chronologically well defined? To which houses they were related? And further, was there coherence in practices? Can we use grave groups to detect kin affiliations? And, were there differences between them?

Other scholars have already treated the graves in Lerna as clusters. Angel was the first who divided the graves into 13 clans, which he named after their placement in the settlement (Angel 1971). Angel tried to relate these clans, which roughly corresponded to the excavation units (Table 11), with particular houses. However, not all of his groups were spatially well defined and compact. Moreover, Angel's main goal was to examine different descent of each clan by studying morphological resemblance between the skeletons of the same clan. In this way he tried to contribute to the discussion about the origin of the people inhabiting the Greek mainland during the Bronze Age.

Clan name	**Areas**
Western	C, H, M
Southern	AD, G, GP, GQ, J, JA, JB
Forest	B, BA, BB, BE, BD
Central	BB, B7, B8
Marsh	A, B9, B10
Spring	BD west and central
River	BD, BF
Northern	BE
Bridge	DE south
Eastern	DE north-east
Plain	DE central
Sea	D
Bay	DC, DB

Table 11: Angel's clans

Later, Nordquist (1979) combined Angel's clans into six larger groupings (Table 12) but she did not attempt to associate them with particular houses. She rather used her groupings as spatial divisions in order to study the distribution of various features across the cemetery.

Nordquist's clusters	**Angel's clans**
West	Western
Midwest	Spring, Forest, River, Central
South	Southern
Mideast	Northern, Marsh, Bridge
East	Eastern
Shore	Plain, Sea, Bay

Table 12: Nordquist's and Angel's groupings

Here only the dense groups in which graves were placed in the same approximate location over a period of time and that were related to particular houses will be analysed as groups. In other words, burial groups have been defined not only spatially but also temporally. These groups are then used as a means to detect kinship or any other kind of affiliation among the people buried in the same group. Such an analysis was only possible in the east half of the excavated area (areas BE, D, DE), where plans showing the relation between houses and graves in each phase are available. As it has already been stated, most of the graves in all areas were aligned with nearby house walls. Thus, the study of grave orientation inside each group is not indicative of the coherence of the group and it will not be examined.

The accuracy in the demarcation of the groups is strongly influenced by the completeness of the house plans. Thus in areas BE, D and the south part of area DE the grave groups are better defined than in the central and north part of area DE, where no complete house plan exists. Based on this analysis seven grave groups were created (Milka in Voutsaki et al., 2007, 66-67) (Table 13, Fig. 35):

Group A

This group contains the earliest graves.[27] It was created during the late part of the MH I period in the south part of area DE. The latest graves of this group date from the MH

[27] The EH III neonate burials have been found in areas A (AD1, AH2), B (B, B10, BA5, BB3), G (G4) and J (J), while the two transitional MH III/LH I in areas B (B4) and BD (BD28) (see Fig. 4).

III period. In total, 13 graves have been associated with two houses, or better rooms, AR and AC, which were built one upon the other (see p. 36).

Group B

This grave group is very clearly associated with House complex 98A, House 100 and Rooms 3 and 5, all situated in the east part of area BE and the NE part of area B. In total, 32 graves dating from the MH II until the LH I period were opened over and around the ruins of the houses and rooms (only one grave may have been contemporary with House complex 98A, see p. 30). The latest MH III/LH I-LH I graves were opened to the west of the earlier graves of the group.

Group C

The ten graves of this group were opened around and over the MH II House M in area A. A couple of graves, opened outside it, may have been contemporary with the house, while more graves were opened after its abandonment. Although this area was not discussed with Carol Zerner I decided to include it in the grave group analysis as House M was well preserved and published and the group of graves around it was relatively compact. Observations were thus based on the already published information and plans (Fig. 36).

Most of the graves found in this area date from the MH III period and post-date the house. Later graves or houses have not been found in this area of the settlement. More precisely, the MH II graves A2-3-4 and A11 were found in the area west of the apsidal House M, where the MH III graves A1, A9, A10 and B18 were also opened. MH III graves, A5, A6, A7, were also opened upon the ruins of the house. All the graves of this area will be treated here as belonging to one group related with House M, as it is not clear from the preliminary reports if other contemporary houses existed west of House M, where some of the graves are located.

Group D

This grave group is situated in the central part of area DE. Eleven graves dating from the MH II and MH III periods were associated with House 55 and House V. During the MH II period six tombs were opened in the area east of the apsidal House 55, after the house was destroyed and abandoned. During the MH III period five graves were opened over the ruins of House V. Although graves dating from the SGE have also been found in this area, these graves are treated as a different group (group G) together with graves found in the north part of area DE, because the entire region was by then occupied by a single house, but I will return to this later.

Group E

Group E is situated just north of group D, in area DE. The four MH II graves were associated with some, probably, terrace walls, while the 15 MH III graves were opened over the ruins of Room or House AW. It should be noted, however, that group E is not very compact, especially during the MH II period. During the MH III period it became more compact, although the existence of two sub-groups, a northern and a southern, cannot be excluded. Once again, the fragmentary state of house plans, especially in this excavation area, does not allow for more refined spatial analysis. As mentioned above, the SGE graves of this area will be treated as a separate group.

Group F

Group F is situated in area D. 17 graves dating from the MH II until the transitional MH III/LH I period belong to this group. Most of the MH II graves were probably opened over the ruins of House BD, in an area used during this period as a 'graveyard'. The MH III graves were opened east of Room AH, House AH.

Group G

Group G covers the whole area DE during the SGE, that is from the MH III/LH I until the late LH I period. In the earlier phases this area was divided into two separate groups, group D and E, related with particular houses. The SGE graves, however, were opened upon a single house, or rather larger house complex, House D. It should be stressed however, that this is not a compact group and some graves seem to form smaller sub-groups. This may have been the result of a change in the cemetery spatial organisation towards the late part of the MH and the begging of the LH period, when no contemporary houses existed. Alternatively, the grave distribution is related with the function of the underlay architectural remains. Unfortunately, no complete house has been excavated in this area making the spatial analysis difficult.

In the following chapters the coherence of these groups in terms of age and gender inclusion, of health status, of grave types and finds and of mortuary practices will be studied. The ultimate goal will be to examine whether the groups were family based and whether differentiation existed between them. Finally, change through time will be also examined.

Group	No of graves	Area	Date	Associated architecture	Graves
A	13	DE	MH I late	House AR	BE27, DE33, DE50, DE52, DE64, DE68, DE71-72
			MH II	House AR	DE28, DE41, DE49
			MH III	House AC	BE11, DE18, DE30
B	20	BE (east), B (NE)	MH II	House complex 98A	B20A-B, B21A-B, BE22, BE23, BE24, BE26, BE28, BE29, BE30, BE31
			MH III	House 100	B17, B19, BE9, B24, BE10, BE12, BE19, BE20, BE25
	12		MH III/LHI-LH I	Rooms 3 and 5	B25-BE18, BE3, BE5, BE6, BE7, BE8, BE13, BE14, BE15, BE16, BE17, BE21
C	10	A	MH II	House M	A2-3-4, A11, A12?
			MH III	House M	A1, A5, A6, A7, A9, A10, B18
D	11	DE	MH II	House 55	DE35, DE36, DE62, DE63, DE65, DE66
			MH III	House V	DE24, DE31, DE32, DE34, DE59
E	19	DE	MH II	Terrace walls	DE55, DE61, DE67, DE69
			MH III	Room or House AW	DE23, DE25, DE27, DE29, DE37, DE38, DE40, DE42, DE45, DE48, DE51, DE53, DE57, DE58, DE60
F	17	D	MH II	House BD, House BC	D1, D16, D17, D18, D19, D21, D22
			MH III	House AH	D14, D15, D20
			MH III/LH I	House R	D3, D4, D5, D6, D7, D8, D11
G	25	DE	MH III/LH I -LH I	House complex D, House P	DE2-3, DE5, DE6, DE9 DE10, DE11, DE13, DE15, DE16, DE19, DE7, DE8, DE12?, DE14, DE20, DE21, DE22, DE26, DE39, DE43, DE44, DE46, DE47, DE54, DE56
Total:	**127**				

Table 13: grave groups

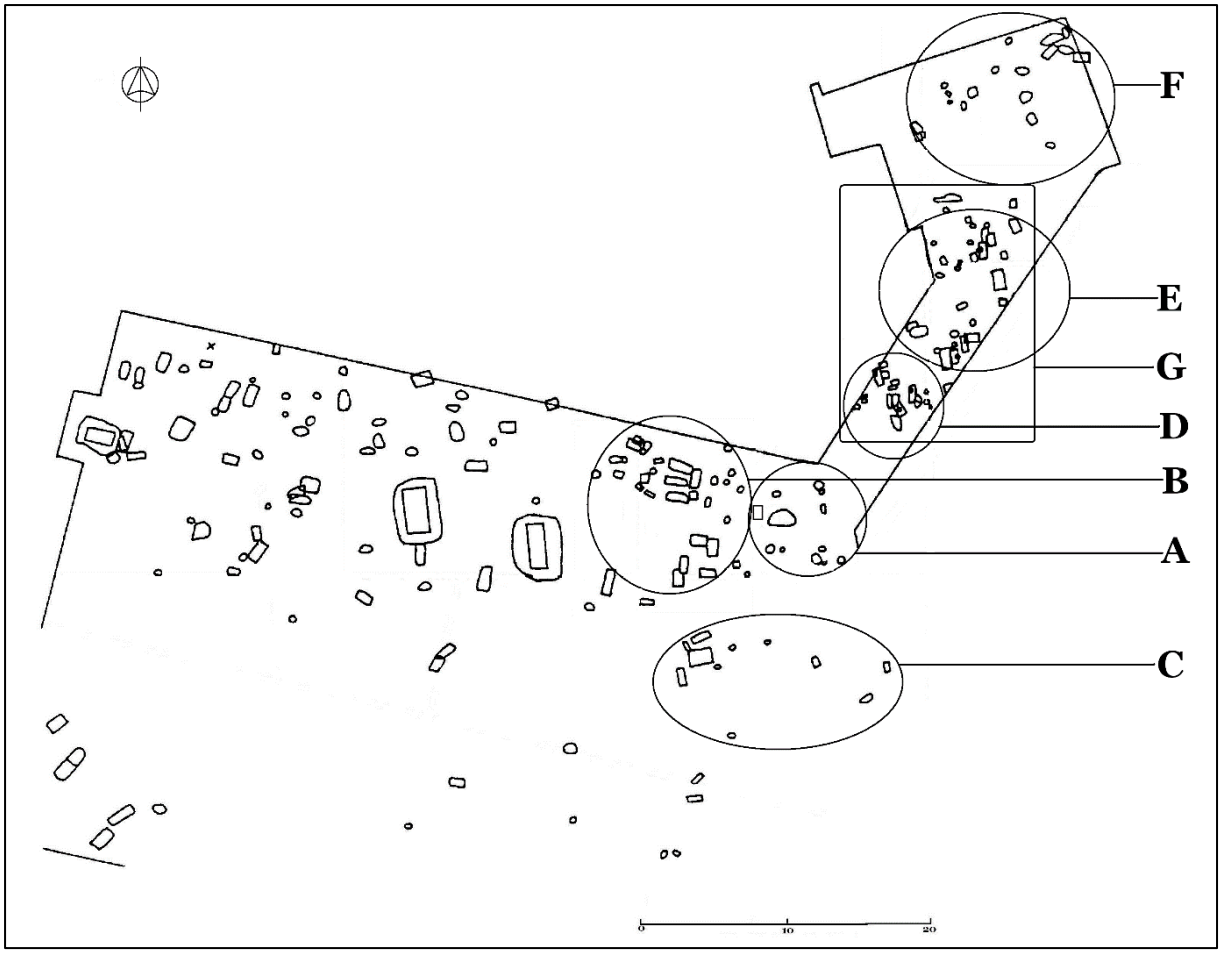

Fig. 35: grave groups

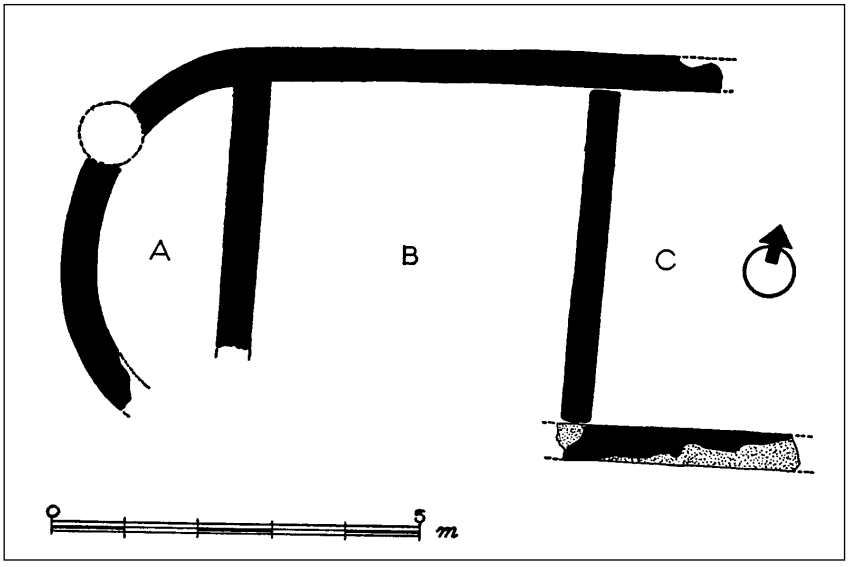

Fig. 36: Area A, House M (after Caskey 1954, fig.2)

1.3 LERNA: GRAVE ANALYSIS

Having discussed the general characteristics of the cemetery location and spatial organization through time, let me know turn to the graves and analyse the available information about the skeletal material and the grave types.

1.3.1 The skeletons

Here, first the demographic profile of the skeletal material is presented. The main question to be addressed is whether all age categories and both sexes were represented in the cemetery through time and across space. Then, health status and diet is briefly examined. Special emphasis is given on comparisons between men and women and between the grave groups. The ultimate goal is to detect possible differentiation, again through time and across space. Finally, the results of the recent molecular analyses are presented and discussed.

In brief, the proportion of adults and sub-adults buried in settlement changes through time. In general, both sexes are represented but more men have been found. Morphological and chemical analyses of the skeletal material revealed a slight degree of gender differentiation, already from the MH I-II period. As regards to grave groups the demographic profiles of most of them favours the hypothesis that they were kin based.

From the MH and LH I graves 240 skeletons, or parts of skeletons, were found and recorded during the excavations. The preservation of the skeletal material was usually sufficient. 220 of the skeletons were kept and they were later studied by L. Angel. The results were published in the second volume of the Lerna series (Angel, 1971).[28] The remaining 20 skeletons were discarded basically due to bad or incomplete preservation of the bones.[29] However, for six of the discarded skeletons some information about the mode of disposal is available (Table 14). [30] In seven graves a skeleton was not found either because the bones had disintegrated or because they had been removed.[31] The

[28] Angel studied two more skeletons, 32Ler and 241Ler, of unknown provenience. These two skeletons are not included here.

[29] The only exception is the skeleton of grave AH3, a very good preserved adult skeleton, which was discarded and not studied.

[30] For these skeletons an entry has been made in the data base. The approximate age of these six skeletons will be used in the analysis.

[31] B 8, B 11, BE 12, BE 31, DE 58, G 1, Shaft Grave 1

location of four other graves was recorded but they were not excavated.[32] In total, 226 entries of skeleton data have been made in the data base.

Grave	Skeletal preservation	Age category	Information about mode of disposal
AH 3	Complete skeleton	Adult	Available
B 1	Only leg bones	Adult?	Available
DE 56	Fragmentary bones	Infant?	Available
DE 61	Fragmentary bones	Infant?	Available
DE 65	Unknown	Infant?	Available
DE 66	Unknown	Infant?	Available
Shaft Grave 2	Few foot bones	Adult	Not available
B 5	Bits of bone	Unknown	Not available
B 6	Bits of bone	Unknown	Not available
BC 3	Few bones	Adult?	Not available
B 21B	Some bones	Infant?	Not available
BD 8	Few bones	Adult?	Not available
DC 3	Bits of bone	Adult?	Not available
DC 4	Few bones and teeth	Child?	Not available
DE 7	Bits of bone	Unknown	Not available
DE 16	Bits of bone	Unknown	Not available
DE 20	Few bones	Infant?	Not available
DE 44	Bits of bone	Unknown	Not available
DE 49	Few bones	Adult?	Not available
DE 67	Fragmentary skeleton	Infant?	Not available

Table 14: discarded skeletons

Angel numbered the skeletons differently than the graves starting from area A, grave 1 and proceeding alphabetically into the next areas. The site name is indicated after the skeleton number, for example 23Ler. According to Angel's analysis, the skeletons belong to 97 adults, of which 53 were males and 44 were females, and 123 sub-adults (individuals <15), mostly infants and young children. Angel indicated also the sex of sub-adult individuals based mainly on morphological criteria and on some measurements. However, he stresses that there is a very large overlap in these techniques and he states: 'the sexing of infants and children involves a considerable amount of judgment' (Angel 1971, 71). Recently, a child skeleton (123Ler; B 25, BE

[32] C-J, C-K, DE 69, F 2

18) was sexed using aDNA analysis (Kovatsi et al. 2009, 165-168; 2010, 489-494). The molecular analysis revealed that the skeleton was male, while a female was indicated based on Angel's morphological analysis. This discrepancy underlines the problems involved in osteological sexing of sub-adult skeletons.

Triantaphyllou (in Voutsaki et. al 2006, 95-102; 2007, 63-64; Triantaphyllou 2010b, 130-131; in preparation) has recently re-studied 209 of the EH/MH-LH IIA skeletons, under the MH Argolid Project.[33] The results of this study will be used in my analysis. The re-examination has been done according to new standards and techniques in the anthropological studies (Triantaphyllou, in Voutsaki et al. 2005, 35). Each individual has been ascribed to one age category (Table 15) and sex has been determined only for adult and juvenile skeletons. According to Triantaphyllou's analysis the skeletons belong to 87 adults (41.6%), of which 54 were males and 33 females; 6 juveniles, of which 1 was male, 3 were females and 2 are of unknown sex; and 116 (55.5%) neonates, infants and children (Table 16).

Age category	**Approximate biological age**	**Number of skeletons**
Foetus-Neonate	premature-1y	**70**
Infant	1-6y	**34**
Child	6-12y	**12**
Juvenile	12-18y	**6**
Young adult (YA)	18-30y	**12**
Prime adult (PA)	30-40y	**39**
Mature adult (MA)	40-50y	**17**
Old adult (OA)	+50y	**5**
Adult	+18y	**14**
	Total	**209**

Table 15: Age categories, according to Triantaphyllou's analysis

[33] Seven skeletons from grave BE (243-249Ler) and the skeleton from grave DB (142Ler) were not found in the Lerna apotheke, Argos Museum (summer 2005). Furthermore, the skeletons from grave BD 3 (82-83Ler) and from grave DE 4 (153Ler) were not re-studied, as according to the revised dating they post-date the SGE. The anthropological information for these eleven skeletons will be based on Angel's study. Finally, seven skeletons were re-studied but they are not included here either because they are earlier (36Ler-BA5: foetus/neonate, 41Ler-B10: neonate, 60Ler-AD: foetus/neonate; EH III) or later (21Ler-D2: neonate, 29Ler-D10: adult-male, 150Ler- 150aLer-DE1: 2 neonates; LH II late).

Age category	Male	Female	Unknown	Total
Juvenile	1	3	2	**6**
YA	8	4	0	**12**
PA	20	19	0	**39**
MA	15	2	0	**17**
OA	3	2	0	**5**
Adult	8	6	0	**14**
Total	**55**	**36**		

Table 16: Gender distribution in age categories, according to Triantaphyllou's analysis

If we compare Angel's and Triantaphyllou's studies, overall the same mortality profiles and sex inclusion has been observed by the two researches (Chart 2). According to Triantaphyllou's study however, higher mortality rates were observed in prime adulthood; more women died in prime rather than in young adulthood; more men died in young, mature and old adulthood. These results run counter to Angel's interpretation that high mortality of women during young adulthood was due to pregnancy and birth implications (Triantaphyllou, in Voutsaki et. al. 2006, 95-102).

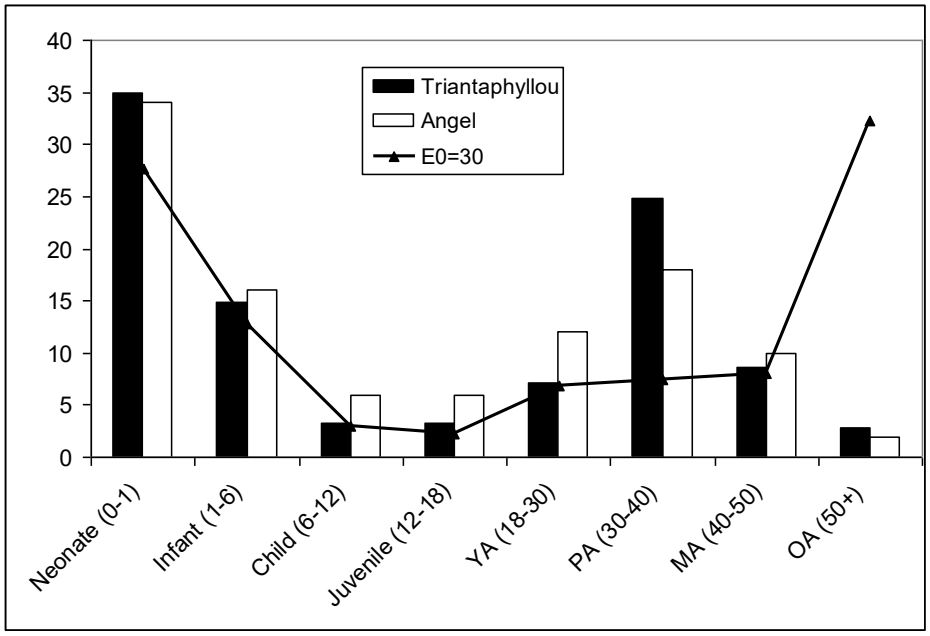

Chart 2: comparison of Angel's and Triantaphyllou's mortality profiles. The line shows the expected profile (from Triantaphyllou, in preparation)

If we now turn to age inclusion through time, we observe that during the EH III and the transitional EH/MH period only foetus/neonates were buried in the settlement under or between houses, pointing to differential mortuary treatment of this age group. From the

MH I until the MH III period adults and sub-adults were almost equally represented in the burial assemblage (Voutsaki 2004, 352; Ingvarsson-Sundström 2008; Ingvarsson-Sundström & Nordquist 2005, 156-174; Pomadère 2010). Only during the SGE did sub-adult burials clearly predominate (Chart 3). At the same time the cemetery at Myloi came into use (see chapter 1.6) indicating the existence of an extramural burial place primarily reserved for adults.

It becomes thus obvious that the overall statement that sub-adults predominate in the settlement context during the MH period does not hold for all sub-phases of the period.

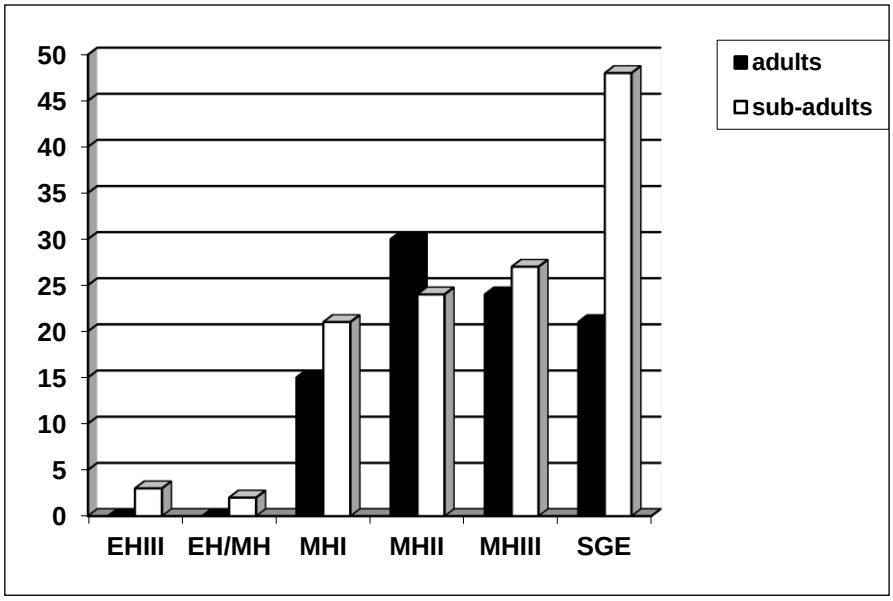

Chart 3: distribution of adults/juveniles and sub-adults in each period

Finally, if we examine the distribution of age categories into the grave groups we see that adults and sub-adults were found in most of them (Chart 4). In all these cases the kinship suggestion is supported. The only exception, where only sub-adults have been found, is group G that dates from the SGE. It seems thus that during this late phase next to the tendency to bury adults on formal extramural cemeteries, a stricter spatial differentiation was applied for adults and sub-adults still associated with the settlement area. Area D, where group G is situated, was preserved for sub-adult burials, while adults were buried in other parts of the settlement.

We see therefore that all age categories are represented. However, old adults are under-represented. During the EH III-EH/MH period only neonates/ foetuses were buried in the settlement. Finally, during the SGE sub-adults predominate. If we turn to gender, both men and women are represented. In general, however, more men have been found

in the excavated part of the settlement (Voutsaki 2004, 355; Triantaphyllou, in Voutsaki et al. 2005). Finally, all grave groups from the MH I until the MH III period have similar demographic profiles.

To conclude: the settlement was the main cemetery from the MH I until the MH III period. The inclusion of men and women, and of all age categories in the grave groups support the hypothesis that the groups were kin-based.

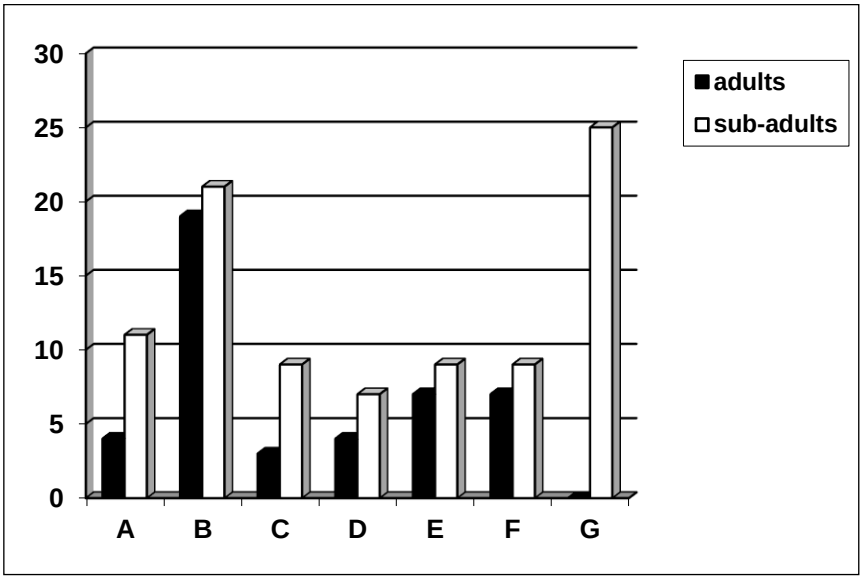

Chart 4: age distribution in each group

Extra bones

Besides, 44 out of 209 examined skeletons yielded 103 additional bones, which correspond to 49 individuals from 36 graves (Table 17) (Triantaphyllou, in preparation). In six cases, additional skeletal elements from the same grave provided at least two more individuals.

These additional bones, from individuals other than the main burial, were not noticed during the excavation and they were collected together with the bones of the articulated skeleton occupied the grave. Thus, they have a clear grave context. In contrast, as we will see in section 1.3.2.e, stray, disarticulated bones, found loose in the soil were sometimes noticed during the excavation or they were separated from the animal bone material. Stray bones, thus, are missing a grave context.

The existence of extra bones in the graves not only raises the total number of individuals buried in the cemetery but also addresses the question of how these bones resulted in

the graves. Were they the product of accidental disturbance of earlier burials or the result of intentional removal of earlier burials?

The skeletal representation of the additional bones in MH Lerna resembles closely to the expected skeletal representation of a complete adult skeleton and includes all types of anatomical units (Chart 5). There is thus no preferential selection towards particular skeletal elements suggesting that the additional bones resulted probably from disturbance of earlier burials. Indeed, the highest frequency of individuals counted out of additional bones was observed in areas BE, DE and D, where burial activity was intense.

Additional bones were found in different grave types covering the entire span of the period under study.[34] Their occurrence, however, was higher during the late part of the period, MH III-LH I. During that time, it had been more probable to disturb an earlier grave while digging a new one. In that case the presence of extra bones is accidental. At the same time, however, as we will see later (section 1.3.3), the practice of re-opening a grave for a new interment was practiced and the old skeleton was sometimes removed. In that case, the additional bones may have been the leftovers of the older burial reflecting an intentional action. But I will return to that point later.

If we turn to age, all age categories are represented in the additional bone material (Chart 6). In accordance with the demographic composition of the population, neonates and adults predominate. Yet, the number of adults nearly doubles the number of neonates. The predominance of adults combined with the late date of most the graves containing extra bones favours the hypothesis that those bones, or some of them, might have been the result of secondary burials. Secondary treatment has mainly been attested in juvenile-adult skeletons (see section 1.3.3). The opposite pattern, with neonates predominating was observed in the stray bone material (see section 1.3.2).

To conclude, the burial use of the cemetery was more intense than we thought until now, as 49 more individuals have been added to the skeletal assemblage. The occurrence of extra bones in the graves is most probably the result of accidental disturbance of earlier burials, as it is indicated by the skeletal representation. However, the possibility cannot be excluded that some of them, especially adult skeletal parts found in late graves, were the result of secondary treatment of earlier burials.

[34] 11 graves containing extra bones date from the MH I-II period; 7 date from the MH III period; 13 date from the SGE.

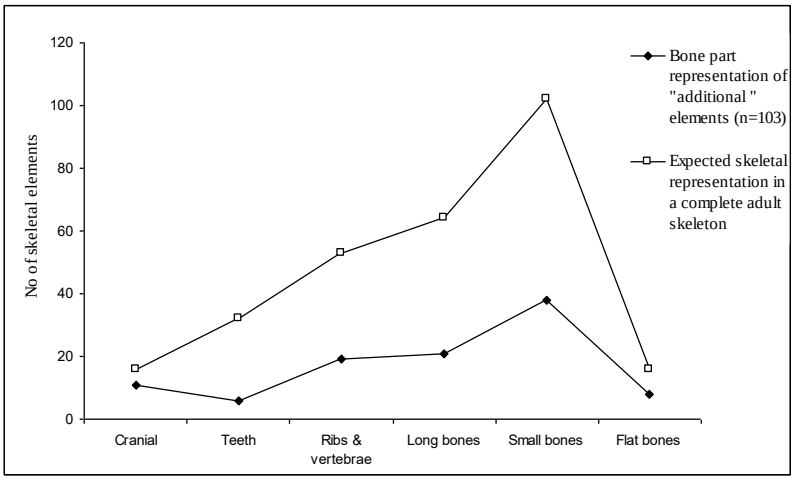

Chart 5: Skeletal representation of additional bones (from Triantaphyllou, in preparation)

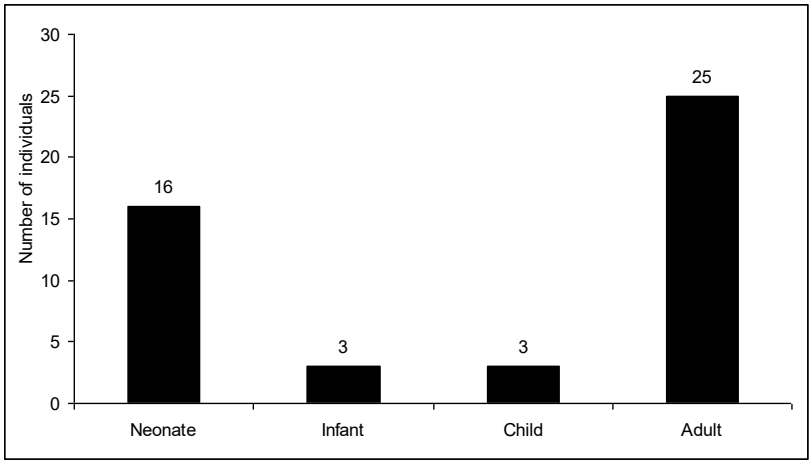

Chart 6: distribution of age groups in the additional bone assemblage (from Triantaphyllou, in preparation)

Grave No	Skeleton No	Date	Grave type	Extra bones
A1	1Ler	MH III	Cist	1) RMT1, 2) RMT2
A1	2Ler	MH III	Cist	1) LMT4, 2) LMT3
A10	9Ler	MH III	Cist	1) L clavicle: acromial end < infant
B	72	MH	Scattered bones	1) R femur < Neonate
B12	42Ler	MH II	Pit	1) R fibula: complete except prox epiphysis < Male ?, 2) C1-C2
B25, BE 28	70Ler	SGE	Cist	1) R talus, trochlear surface < Adult, 2) R scapula, thoracic vertebral body, rib frgmnt, R foot < Child
BD14	91Ler	MH I	Pit	1) R tibia & fibular: distal end, 2) RMT1, RMT3, RMT4, RMT5 3) R cuboid, R navicular, 4) LM1, LMT3, LMT5, 5) L3rd cuneiform, 6) 2 Proximal foot phalanges, 7) R calcaneus < Adult Male?
BD27	103Ler	MH I	Pit	1) Ros coxa < Adult, 2) Unidentified long bone fragments < Neonate
BE13	117Ler	SGE	Cist	1) L ilium < Neonate
BE17	121Ler	SGE	Cist	1) maxillary RI1 < Adult (also mentioned by Angel, 121a Ler)
BE19	126Ler	MH III	Cist	1) R femur, 2) R2nd cuneiform, 3) L parietal with evidence of slight porosity which does not belong to any of 125 or 126LER < Adult
BE23	129Ler	MH II	Pit	1) R pubis < fetus
BE25	131Ler	MH III	Cist	1) Mandibular LI2 < Adult
BE26	132Ler	MH II	Cist	1) skull fragments < Frontal, nasal, R zygomatic, L/R maxilla, Hyoid < Adult
BE30	137Ler	MH II	Pit	1) mandibular RI2
BE30	138Ler	MH II	Pit	1) Proximal phalanx of great toe < Adult, 2) 1 rib fragment < Neonate
BE30	139Ler	MH II	Pit	1) Sacral segment (unfused) < Child, 2) LMC2 < Adult, 3) RMC1 < Adult, 4) Proximal phalanx of great toe < Adult
BE30	140Ler	MH II	Pit	1) R capitate < Adult, 2) RMC3 < Adult
BE5	109Ler	SGE	Cist	1) R scapula < early infant
BE7	111Ler	SGE	Pit	1) R ilium < Neonate, 2) R femur < Neonate, 3) Tibia, proximal 1/3: Adult
BE9	113Ler	MH III	Pit	1) L scapula < Neonate, 2) L ilium < Neonate, 3) L fibula < Neonate, 4) Unsided fibula < Neonate, 5) R fibula < Neonate, 6) Unsided rib fragments < Neonate
C-L & M	18Ler	MH I	Pit	1) Maxillary LM1
D14	55Ler	MH III	Semi-cist	1) R talus, 2) Foot phalanx < Female? Adult: possibly due to disturbance of the wooden box stored previously

D16	46Ler	MH II	Pit	1) Maxillary RM3 < Adult
D19	49Ler	MH II	Pit	1) Unsided fibular frgmt, midshaft < Adult
D7	26Ler	SGE	Pit	1) L clavicle < Neonate
D8	27Ler	SGE	Semi-cist	1) R humerus (differential preservation) < Neonate
DC1	146Ler	SGE	Cist	1) R humerus < Adult
DC1	147Ler	SGE	Cist	1) L clavicle < Adult, 2) R clavicle < Adult
DE12	160Ler	SGE	Pit	1) R rib fragment < Early infant
DE2-3	151Ler	SGE	Pit	1) L ulna < Neonate, 2) L zygomatic < Neonate
DE2-3	152Ler	SGE	Pit	1) L radius < Neonate/Infant, 2) 2 rib fragments < Neonate/Infant
DE32	178Ler	MH III	Semi-cist	1) L ischium < Neonate
DE39	184Ler	SGE	Cist	1) neural arch < neonate
DE5	154Ler	SGE	Pit	1) 2 L rib fragments & 3 R rib fragments < Neonate (Birth)
DE6	155Ler	SGE	Semi-cist	1) maxillary RI2
DE60	201Ler	MH III	Cist	1) Hand phalanx < infant
DE63	203Ler	MH II	Semi-cist	1) L ischium < Neonate
DE68	205Ler	MH I	Jar	1) Frontal bone (tuberosity) < Child? (also mentioned by Angel 205aLER)
DE71-72	238Ler	MH I	Pit	1) Rib fragment < Neonate
DE71-72	239Ler	MH I	Pit	1) L calcaneus < Adult, 2) L lunate < Adult
J2	212Ler	MH	Semi-cist	1) LMT3 < Adult
J2	211Ler	MH	Semi-cist	1) Sacrum, S1 & auricular surface < Adult
J4B	217Ler	MH II	Semi-cist	1) RMT2 < Adult

Table 17: extra bones found during the anthropological re-examination of the skeletal material (based on Triantaphyllou's analysis)

Health status and diet

If we now turn to health status, the osteological analysis showed high levels of mechanical load, i.e. osteoarthritis, trauma, musculo-skeletal markers, resulting from heavy occupation, and stress factors, i.e. non-specific infections, anaemia, enamel hypoplasia, resulting from dietary or pathogenic stress during developmental years. The prevalence of pathological conditions through time (Chart 7) reveals declining levels of physiological stress factors e.g. metabolic disease, anaemia (cribra orbitalia) and enamel hypoplasia and infections to have affected the population from the MH I to the MH III/LH I phases (Triantaphyllou, in preparation). This could be attributed either to local factors, i.e. to a possible demographic decline in Lerna and thereby to a less

congregated community, or to a general rise in the standards of living during the more prosperous MH III – LH I period (Voutsaki et al. 2013).

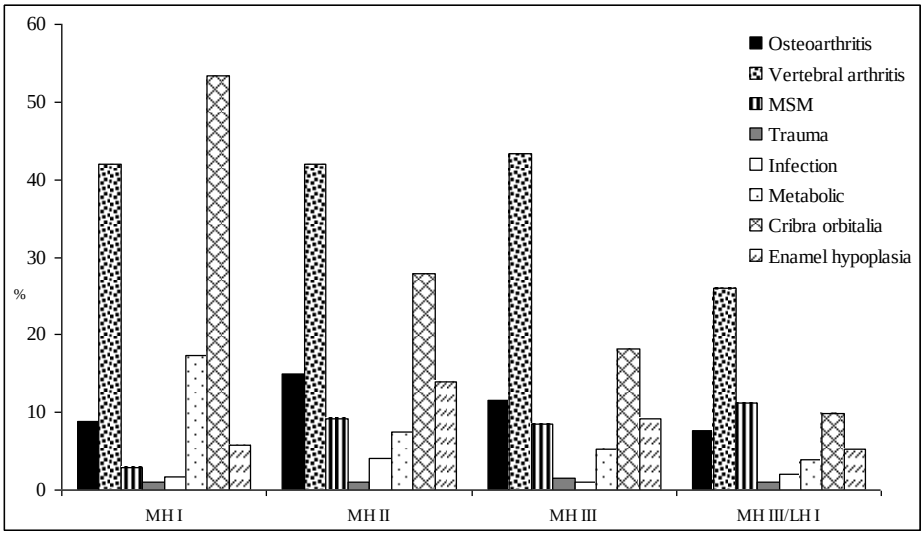

Chart 7: pathological conditions through time (from Triantaphyllou, in preparation)

The distribution of these conditions is not even in the two sexes (Chart 8); men had slightly higher rates of skeleton-muscular lesions and non-specific infections, while women had high rates of anaemia (cribra orbitalia) and enamel hypoplasia defects. This differentiation might suggest that men were more engaged with heavy manual work and women had poor nutrition and living conditions resulting to stress episodes (Triantaphyllou, in Voutsaki et. al. 2006, 95-102). Overall, although there is equal participation of both sexes to similar types of work as indicated by musculo-skeletal markers and traumatic injuries, there is some type of sexual division of labour since the different skeletal parts of the two sexes are not affected equally by those conditions. For example, the lower skeleton of men is more involved in musculo-skeletal markers and traumatic injuries indicating a different type of workload from women (Triantaphyllou, in preparation).

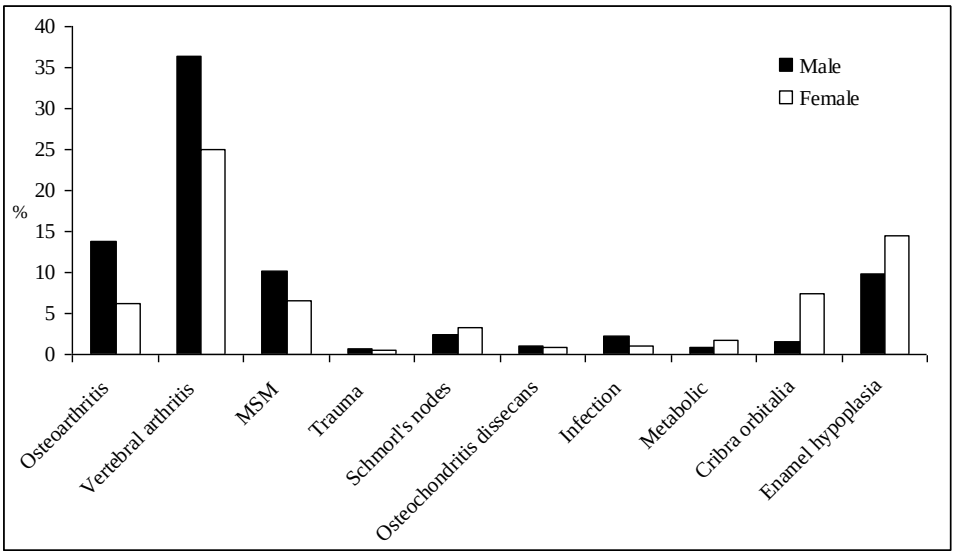

Chart 8: Health status of the two sexes (from Triantaphyllou, in preparation)

Stress factors (metabolic disturbances and enamel hypoplasia defects) appear to have affected women more frequently than men, especially during the MH I–II phases (Chart 9). Women in MH I-II show a slightly higher incidence of lesions related to physical workload, while the opposite is the case in the MH III-LH I periods. Finally, men show consistently slightly higher incidence of non-specific infections, which may suggest more frequent exposure to pathogenic agents, possibly due to external contacts. Therefore, it can be argued that a sexual division of labour, but also subtle differences between sexes existed already in MH I – II (Voutsaki et al. 2013).

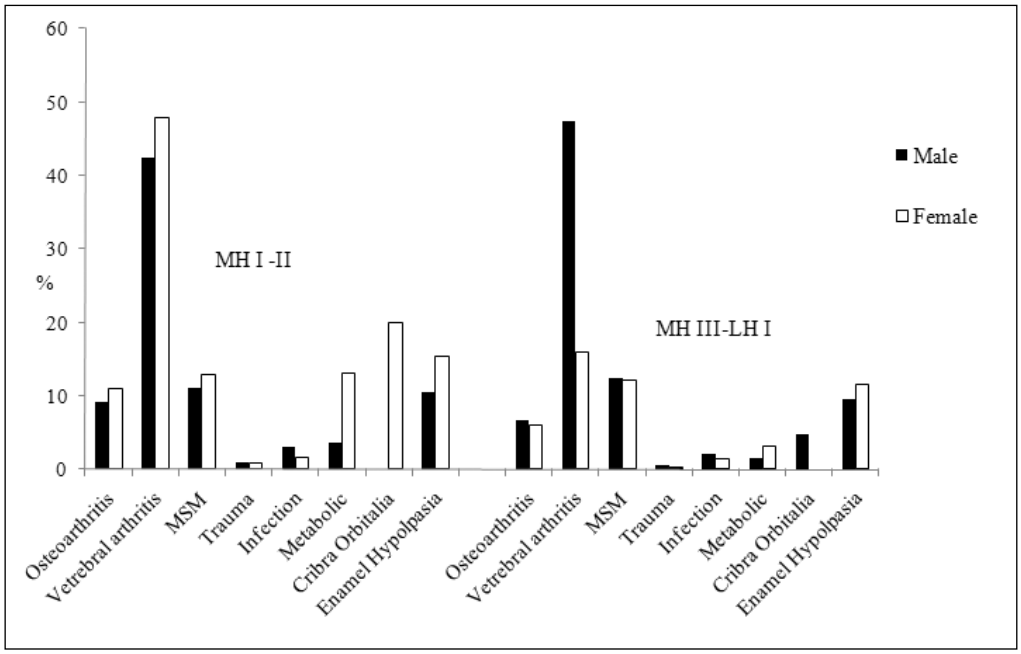

Chart 9: health status of the two sexes through time (from Voutsaki et al. 2013, fig. 4)
(MSM = muskulo-skeletal stress markers)

Sex differentiation was also attested in the distribution of dental diseases and from the dental microware analysis.[35] Both methods showed that women consumed a more processed and soft type of food, rich in carbohydrates, while men had a diet based on protein. Differentiation was more pronounced during the MH III period (Triantaphyllou, in Voutsaki et. al. 2006, 95-102; Triantaphyllou, in preparation). More precisely, during the MH I-II period men and women shared the same diet, but some slight differences existed with regard to the texture of the foodstuffs and the type of the protein intake[36]. During the MH III-LH I period the slight difference between men and women persists, with men having a more varied diet than women and a slightly higher consumption of animal protein (Voutsaki et al. 2013).

Health status was also examined against burial treatment and inclusion in different grave groups. Special emphasis was given to those adults that show absence of mechanical load and to those adults and sub-adults that do not show evidence of stress. If we start with the absence of mechanical load, which would imply less involvement

[35] The dental microwear analysis was undertaken by S. Triantaphyllou during the tenure of an INSTAP Postdoctoral Fellowship. The analysis was carried out in the University of Sheffield, under the supervision of Ingrid Mainland, Department of Archaeological Sciences, University of Bradford.

[36] It should be stressed, however, that only the MH II period has a good sample size.

with heavy manual work, only four skeletons[37] (out of 209 examined) were sufficiently preserved to give safe results. Moreover, their dating is not always secure (Table 18). Nevertheless, none of these burials is exceptional in terms of grave construction or offerings, nor do they cluster in a specific area.

Phase	Male	Female
MH I – MH II	0	1
'MH'	0	2
MH III-LH I	1	0
TOTAL	1	3

Table 18: Skeletons showing no evidence of lesions associated with mechanical load (from Voutsaki et al. 2013, table 2)

If we now turn to stress, eight MH I–II, out of 29 skeletons with fairly good skeletal representation, show no lesions associated with physiological stress (Table 19). Once more, low levels of stress do not correlate with burial treatment, grave type or grave offerings. During the MH III-LH I 21 skeletons, out of 29 with fairly good skeletal representation, show no indications of dietary or physiological stress (Table 19). Although the number of skeletons lacking stress lesions increases in this period, none of the burials interred in larger graves or accompanied by richer offerings belong to this category (Voutsaki et al. 2013).

Phase	Subadults	Adults	Total
MH I – MH II	7	1	8
MH III-LH I	14	7	21
TOTAL	21	8	29

Table 19: Skeletons showing no lesions associated with dietary or physiological stress (from Voutsaki et al. 2013, table 3)

[37] These skeletons belonged to three females: BC 5, 77Ler, MH I, date not revised; M 1, 59Le, 'MH'; J 2, 211Ler; 'MH' and a male: BD 5, 85Ler, MH III/LH I, date revised.

Finally, if we examine the distribution of the 21 MH III-LH I skeletons, out of 29, missing stress lesions across the different grave groups, a relatively higher concentration is observed in the area of Groups B and C (Table 20).

Group	No of MH III-LH I skeletons examined	No of skeletons without signs of dietary or physiological stress
A	3	1
B	21	6
C	7	4
D	4	0
E	15	3
F	10	2
G	10	2
Not belonging to a group	54	3
TOTAL	124	21

Table 20: Distribution of skeletons showing no signs of dietary or physiological stress in MH III-LH I (after Voutsaki et al. 2013, table 8)

Recently (Triantaphyllou et. al., 2008a), a stable isotope analysis of the human bones was also carried out. The analysis revealed some interesting results concerning diet. Overall, the MH inhabitants of Lerna had a mixed terrestrial diet, while seafood was not an important component of their diet. Generally, men and women have consumed a similar proportion of animal and plant based proteins. However, three adult males (20Ler-MH II, 48Ler-MH II, 175Ler-MH III) and a male juvenile (122Ler-SGE) seem to have consumed more plant-based protein, while three other males (1Ler-MH III, 82Ler-post SGE, 115Ler-MH III) had a diet richer in animal protein. Isotopic differentiation of those males may indicate that men had a more varied diet than women and a slightly higher consumption of animal protein. However, the three men with higher animal protein levels were not distinguished in any other way (Table 21).

Skeleton No	Grave No	Age	Phase	Grave type	Offerings
1 Ler	A 1	YA (late 20s)	MH III	cist	bone awl, obsidian blade
82 Ler	BD 3	MA (40-50)	LH I, or later	pit	no offerings
115 Ler	BE 11	MA (40-50)	MH III	brick cist	no offerings

Table 21: MH III – LH I male burials with higher animal protein levels (from Voutsaki et al. 2013, table 6)

To conclude, although men and women shared similar types of occupation and diet, subtle differences between the sexes existed already in the MH I-II period. Overall, health status improves through time. However, better health, as it is indicated by the absence of mechanical load and stress lesions, does not correlate with burial treatment at any time. Interestingly however, during the MH III-LH I period, some grave groups had relatively more skeletons missing stress lesions.

Molecular analysis

An aDNA analysis of ten skeletons (teeth) was carried out under the MH Argolid Project (Kouidou-Andreou et al., in Voutsaki et al. 2006, 102-103; Kovatsi et al. 2009; 2010). The concordance between morphological (Triantaphyllou, in Voutsaki et al. 2006) and molecular (Kovatsi et al. 2009) analysis was 71% (Table 22). In two cases, however, molecular and anthropological data were not in agreement.

Skeleton 139Ler was female according to the anthropological analysis, while a male was indicated by the aDNA analysis. This was one of the five skeletons found in grave BE 30. It was placed contracted on stomach, a rather strange position. Both men and women have been found in prone position (see chapter 1.3.3), thus body position does not correlate with the gender. Offerings were found in the grave but it was not possible to attribute them to the different skeletons.

The opposite occurred with skeleton 198Ler (DE 55), which was male based on the morphological analysis and female based on the molecular analysis.[38] 198Ler was a single burial and the skeleton was found contracted on the right side. Interestingly, more

[38] This however may have been a false identification of a male specimen as a female due to allelic drop-out of the 112 bp fragment (Kovatsi et al. 2009).

men than women have been found buried on the right side but exceptions do exist (see chapter 1.3.3). No offerings have been found in this grave.

Finally, molecular analysis revealed the biological sex of a 7-8 years old child (123Ler, BE 18), who was male. Angel (1971, 55), based on morphological criteria, thought the child was female. The skeleton was found contracted on the right side, which is the most frequent side for male skeletons.

These discrepancies may be due to a degree of inaccuracy inherent in both methods. aDNA samples are sensitive to contamination from modern DNA, which might have been the case with 198Ler, since only women took part in the analysis, while morphological sexing relies to a series of measurements/scores where femaleness and maleness reside at opposite ends of a continuum with ambiguity situated in the middle. Nevertheless, aDNA analyses, when conducted with high standards and when more than one sample from the same skeleton is available for checking, give more reliable results.

Sample number	Skeleton number	Grave number	Morphological analysis (Triantaphyllou)	Molecular analysis
1	123Ler	BE 18	--- (child)	M
2	129Ler	BE 23	M	M
3	131Ler	BE 25	M	M
4	137Ler	BE 30	F	F
5	138Ler	BE 30	F	F
6	139Ler	BE 30	F	M
7	182Ler	DE 36	F	F
8	196Ler	DE 53	F	failure
9	198Ler	DE 55	M	F
10	200Ler	DE 59	F	failure

Table 22: Correlation of sex identification results between morphological and molecular analysis (after Kovatsi et al. 2009, table 1).

1.3.2 Grave types and furnishings

Having analysed the available information on the skeletal material, let me now turn to grave types and furnishings and examine variability and change through time. The main question to be addressed is whether different grave types were used for different sections of the population, e.g. adults versus sub-adults, men versus women, or different kin groups. Differentiation is examined across space and through time. Grave furnishings and grave markers are used as additional indexes of grave complexity.

In Lerna three broad categories of grave types existed; there were burial jars, pit graves and cist graves. Additionally, two shaft graves have also been found. Finally, sometimes stray bones, missing a grave context have been found.

Almost half of the graves were pits. Pits were used throughout the period under study, though their numbers decline trough time. They were most often used for neonate and infant burials, while gender differentiation has not been observed. Different sub-types of cists were the second most preferred grave type. Their frequency significantly increases after the MH II period. The percentage of adults buried in cists was higher than the percentage of sub-adults. Gender differentiation has not been observed. Burial jars were only occasionally used for sub-adult burials during the MH I-II period. Finally, the two shaft graves date from the LH I-IIA period. The skeletons of both graves were removed in antiquity.

Pits, cists and burial jars may or may not have had grave cover, grave floor or grave marker (Blackburn, 1971, 13-17; Nordquist, 1979, 20-22). Generally, pebble floors and cover slabs were the most usual furnishings found in the graves at Lerna. Occasionally, a grave marker was found on the top of the grave. In a few cases, a skeleton cover existed. Finally, once (BE12), a base of a vessel was used as a pillow for the skeleton.

a. Burial jars: burials inside storage vessels.

Eight (3,7%) burial jars have been found in Lerna. The vessels were buried in pits, lying on their side. Seven of them (A12, B28, BD24, BE29, BE31, D17, DE50, DE68) were coarse pithoi of piriform shape. Their height ranges from 0,35m to 0,59m. The MH II jar burial D17 is exceptional because a larger (height: 0,63m) Aeginetan MP pithos (L276) was used as burial container (Fig. 37, 38, 39).

Three jars (BD24, DE50, DE68) date from the MH I period and the remaining five from the MH II period. No later jar burials have been found in Lerna.

Spatial distribution

Burials jars were found across the settlement. However, half of them were found at the adjacent burial groups A and B. The burial jars BE29 and BE31were buried together in the same pit (bothros L), which was opened after Room 45, a storage room, went out of use. Jars DE50 and DE68 were probably contemporary with Room AR, which was a kitchen area. Jar DE50 was buried inside the room while DE68 outside it, both adjacent to walls. Jar burial D17 may have been contemporary but is probably later than House BD. It was found in an area used for burials after the house was abandoned. The context where the remaining three burial jars were placed is not clear but at least two of them (A12, B28) seem to postdate the adjacent houses.

To conclude, although contextual information is not always detailed, is seems that burial jars were sometimes correlated with kitchen or storage areas.

Age and gender

Burial jars were exclusively used for sub-adult individuals, mainly neonates and infants (Blackburn 1970, 285; Nordquist 1979, 20; Voutsaki 2004, 353) (Table 23). More precisely, the ages seem to cluster around birth and at 1 year of life. The intermediate ages are missing from jar burials. Once, in burial jar D17, a 3-4 years old child was buried.[39] However, as we have already seen, burial D17 was exceptional not only because an older individual was buried in the pithos but also because a different type of pithos was used.

Grave	**Skeleton**	**Date**	**Age category**	**Exact age**
BD24	100Ler	MH I	Neonate	Birth-4m
DE68	205Ler	MH I	Neonate	Foetus/neonate
DE50	193Ler	MH I	Infant	1y
B28	71Ler	MH II	Neonate	Foetus/neonate
BE29	135Ler	MH II	Neonate	-
A12	11Ler	MH II	Infant	1y
D17	47Ler	MH II	Child	4-5y

Table 23: age of sub-adults buried in jars

[39] In jar burial DE68 (L1234) a skull fragment of a child (205a Ler) (5 to 10 years old) has also been found, but is not clear whether this bone fragment was placed intentionally in the pithos or entered the pithos accidentally. No bones were preserved in jar burial BE31.

Furnishings

The mouth of most (5 out of 7) of the jars was covered with a fragment of a vessel (BE31, B28, DE50), a whole vase (D17) or a stone and a sherd (DE68). Small stones and pebbles were placed around jar burial A12 in order to support it.

Marker

Markers have not been found above a jar burial.

To conclude, burial jars were sporadically used during the MH I-II period exclusively for sub-adult burials.

Fig. 37: Jar burial BD24 (Courtesy ASCSA).

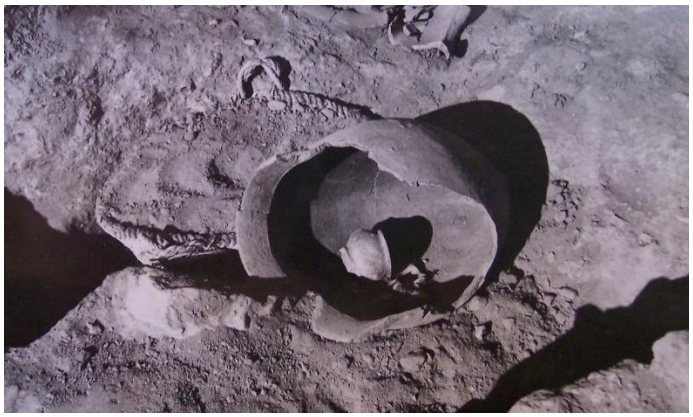

Fig. 38: Jar burial BE29 (Courtesy ASCSA).

Fig. 39: Jar burial BE31 (Courtesy ASCSA).

b. Pit graves: burials in simple earth dug pits.

Almost half of the graves (101; 46%) found in Lerna belong to this category.[40] Pits were usually circular or oval in shape (Fig. 40, 41, 42). Although some rectangular pits strongly resembling cists existed (e.g. BE23, D15) these graves have been treated here as common pits because real cists had more fixed boundaries and they were more time consuming in their construction. During the excavation, it was generally difficult to find the limits and the shaft of these graves.[41] Usually, the skeleton was the first evidence of the existence of a pit grave (Blackburn, 1970). As the limits of the pits were hard to found, the shape and the dimensions of the pit usually coincide with the position and the size of the skeleton. In fact, only pit graves that had a pebble floor or cover slabs are recognised as rectangular.

Pit graves were used throughout the MH and LH I periods. However, their frequency declines significantly after the MH II period (Chart 10).

[40] Three possible stone-enclosure graves are also included in this category. In these graves (D1, D15, DE29) a single row of stones around the pit was probably part of the cover stones.

[41] In other cemeteries, e.g. the Aspis, a category of 'simple inhumations' has been recognised. These were burials where the outline of pits was not found. In Lerna we follow Blackburn's designations concerning pit graves. She did not recognize 'simple inhumations' as a separate category.

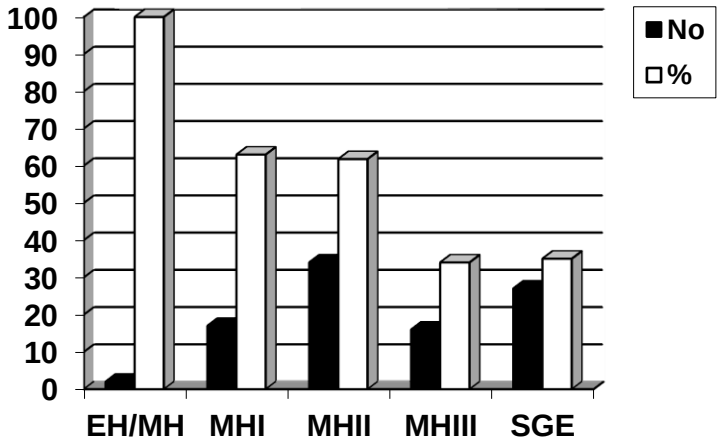

Chart 10: chronological distribution and percentage of pit graves

Spatial distribution

Pit graves were found across the site. If we examine their distribution in the burial groups, however, we observe that their lower frequency was noted in groups B and C, where relatively many adults were buried (Table 24). On the other hand, their higher frequency was observed in groups where many sub-adults burials were found.

	Group A	**Group B**	**Group C**	**Group D**	**Group E**	**Group F**	**Group G**
Pits	8	8	3	5	10	11	14
Total No of graves	13	32	10	11	19	17	25
% of pits	61.5	**25**	**30**	45.5	52.6	64.7	56

Table 24: distribution and percentage of pit graves in the burial groups

Age and gender

104 individuals were buried in pit graves. More than half of them were neonates and infants. However, no age category is excluded (Chart 11). From the sexed skeletons 25 males and 13 females were buried in pit graves. In general, almost the same percentages of males and females have been found in pits (Table 25). The adult pits date primarily from the MH I and the MH II period and only exceptionally from the MH III period[42] or later[43]. Neonate and infant pit graves date from all phases (Table 26).

[42] D15: female; DE29: male
[43] B7: female; B1: adult; BD11: male; BD3: 2 male

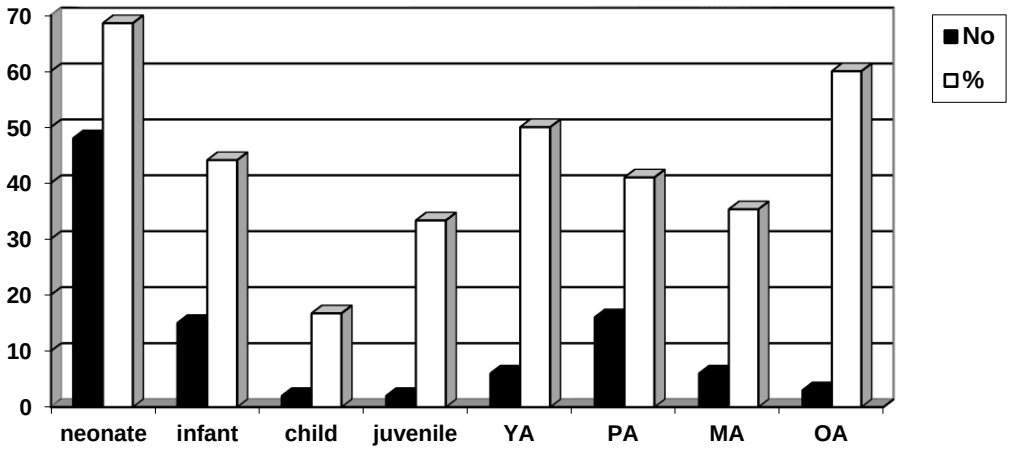

Chart 11: distribution and percentage of pits in age categories

Sub-adults	65-56%		
Juveniles	2-33.3%	**Male:** 0	**Female:** 2
Adults	37-42.5%	**Male:** 25	**Female:** 13
	Total %	**46.3**	**45.5**

Table 25: pit distribution in age and sex categories

	Early phases	**Late phases**
Juveniles-Adults	30	8
Sub-adults	26	37

Table 26: chronological distribution of adults and sub-adults buried in pits

Furnishings

Floors have been found in 18 pits (18%).[44] They were usually made of pebbles (13) but floors formed of hard earth (BA2, BD4, D16, D20) have also been found. In one case, a slab was used as floor (DE62). Floors in pit graves first appear in the MH II period. These graves belonged to seven sub-adults and ten adults, of which seven were males and three females.

Eight pit graves (8%) were covered either with stone slabs (BD3, DE15, DE23, DE33) or with irregular stones (D1, D15, DE29, H1). The existence of grave cover is not certain in six graves (BE23, DE28, DE14, D19, DE62, DE55). The earlier covered pit

[44] In graves D11 and D22 the skeletons were resting on earlier features, a gravel pavement and a wall respectively. However, it is not certain if these features were used intentionally as floors.

grave dates from the transitional MH I/ MH II phase (DE33). Three sub-adults and four adults, two males and two females, were buried in covered pits.

Floors and covers were combined in four MH II-III graves (D1, D15, DE29, H1). All of them were adult burials, two males and two females. The existence of one of the two features, however, is uncertain in three tombs (BE23, DE62, DE55). No other furnishings have been found in pit graves.

We see therefore that furnishings were mainly found in adult pit graves, both male and female. Pits with furnishings first appear during the MH II period.

Marker

A grave marker in the form of a stele was found upon pit grave A7 (Fig. 43). Seven more pit graves may have been marked (Table 27). A vertical slab (stele), a ring of stones or a mass of stones above the shaft could have been used to mark the grave. Although the only positive case dates from the MH III period, evidence for possible markers existed already in the MH I period.

Two neonates were buried in the marked grave A7. In the remaining graves three sub-adults and four adults-two males and two females- were buried. Once, a possible marker was place upon the burial of double male-neonate burial.

We can thus say that age and sex were insignificant for the marking of a pit grave.

Grave	**Date**	**Marker**	**Type**
BD27	MH I	?	Stele
D19	MH II	?	Stele
DE28	MH II	?	Mass of stones
DE35	MH II	?	Stele
H1	MH II	?	Stele
A7	MH III	+	Stele
D15	MH III	?	Ring of stones
DE29	MH III	?	Ring of stones

Table 27: grave markers upon pit graves

To conclude, pit graves were used throughout the period under study, but their frequency declines after the MH II period. They were mostly used for sub-adult burials, especially from MH III onwards. The most elaborate types of pit graves, those that have floors and/or cover, belong primary to adults.

Fig. 40: Pit grave DE29 (Courtesy ASCSA).

Fig. 41: Pit grave DE33 (Courtesy ASCSA).

Fig. 42: Pit grave D16 (Courtesy ASCSA).

Fig. 43: Stele above grave A7 (Courtesy ASCSA).

c. Cist graves: graves formed with stones or other material, usually rectangular. At Lerna 100 (45.5%) cist graves have been found. They date from the MH I until the LH I period. However, it should be noted that the date of the four MH I cist graves[45] has not been revised yet by C. Zerner, who believes that cists first appeared in Lerna during the MH II period (Zerner 1978). Nevertheless, their higher frequency is observed during the late phases of the period under study and especially during the MH III period (Chart 12). At the same time, the frequency of pits declines.

[45] B11, AH3, BC6, DB2.

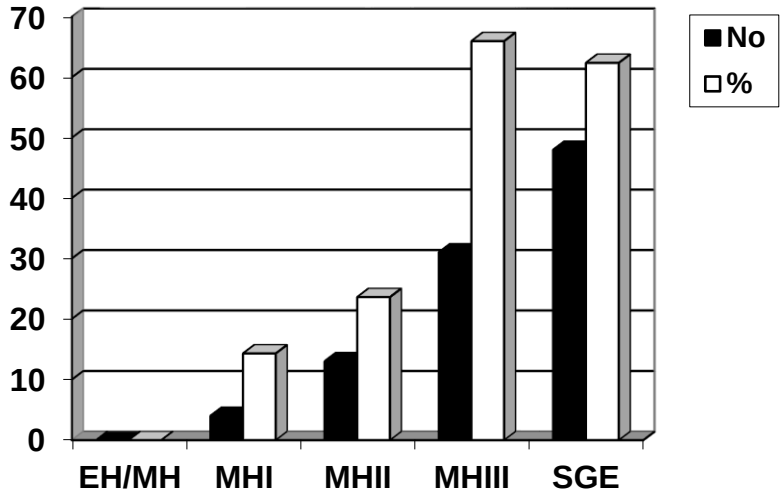

Chart 12: chronological distribution and percentage of cist graves

Cist graves were found across the settlement. Their frequency, however, differs amongst the grave groups (Table 28). Group B reveals the highest frequency of cists. Once more, age inclusion influences the distribution. Moreover, some of the earliest, MH II, cists belong to the same group (BE26, B20A-B, B21A, BE22).[46]

	Group A	**Group B**	**Group C**	**Group D**	**Group E**	**Group F**	**Group G**
Cists	2	21	5	6	9	5	11
Total No of graves	13	32	10	11	19	17	25
% of cists	15.4	**65.6**	50	54.5	47.4	29.4	44

Table 28: distribution and percentage of cist graves in the burial groups

In total, 103 individuals of all age categories and both sexes were buried in cists (Chart 13, Table 29). The percentage of adults, however, was higher than the percentage of sub-adults. Moreover, neonates were the less frequent age category found in cists. However, even foetuses and newborns were not excluded. Furthermore, sub-adult cists date generally later than the adult cists (Table 30). Finally, the frequency of female burials is slightly higher than male burials.

We see therefore that cists are closely correlated with age, especially during the early phase of their use. As time passes age correlation becomes weaker.

[46] Of the remaining MH I-II cists, one belong to group D (DE36), while the rest have been found in areas outside the designated groups.

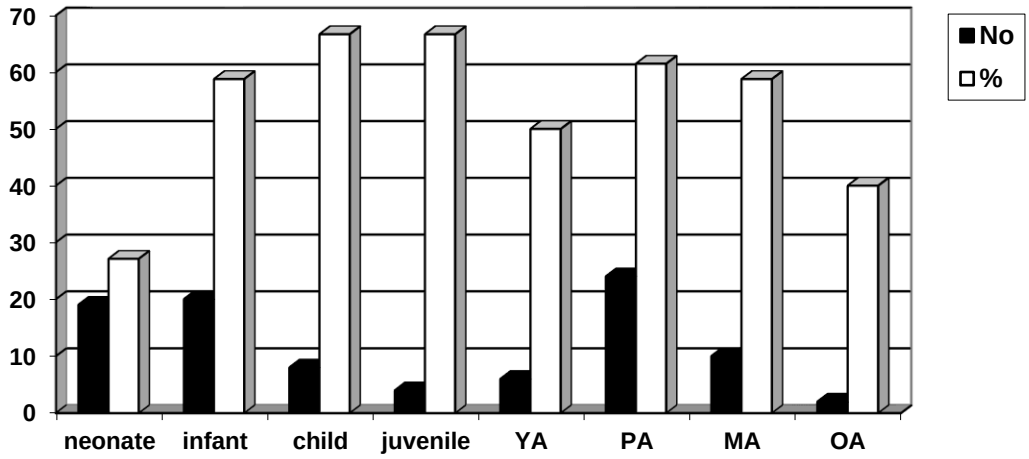

Chart 13: distribution and percentage of cists in age categories

Sub-adults	47-40.5%		
Juveniles	4- 46.7%	**Male:** 1	**Female:** 1
Adults	52-59.8%	**Male:** 30	**Female:** 21
	Total %	**55.5**	**63.3**

Table 29: cist distribution in age and sex categories

	Early phases	**Late phases**
Juveniles-Adults	11	40
Sub-adults	4	40

Table 30: chronological distribution of adults and sub-adults buried in cists

Almost half of the cist graves were covered (45) and another half had floor (44). However, the two features, covers and floors, coexisted only in 16 graves. An infant cist (DE46) dating from the SGE was marked. Yet, evidence of possible grave markers existed above 17 cist graves. Cists, therefore, were probably more often marked than pits.

The size of cist graves varied and it was closely related with the age of the diseased. The inner length and width is known for 67 cists. Graves 0.35-0.50m long and 0.20-+/-0.50m wide (21) were used exclusively for sub-adult burials. Graves 0.85-1.80m long and +/-0.50-1.0m wide (46) were primary used for adults but eight sub-adults (5 neonate/infant and 3 children) were also buried in bigger cists. The depth of cist graves varied between 0.10m and 0.50m and it was not related with the date of construction nor the age of the deceased.

Sometimes (16 graves) a shaft above the cist was recorded.[47] Most of these graves (12) belong to adults, males and females, and date from the MH III-LH I period. Six of them belong to group B, while the remaining was found in different areas of the settlement. Nevertheless, it is possible that a shaft originally existed above more cists but it was not preserved due to later disturbances.

We see therefore that a certain degree of variation and lack of standardization existed amongst the cists. This variation may have been due to different sub-types. Cist graves are thus divided here into five sub-types according to their mode of construction. Our goal will be to examine whether variation existed between the different types.[48]

i. Cists with walls formed of **vertical placed stone slabs (Cist A)** (Nordquist 1979, 21: orthostat cist).

This is the most frequent type of cist grave found at Lerna (Fig. 44, 45). 49 graves (22.4% of the cists) belong to this sub-category. Only one of them dates from the MH I period (B11). The remaining graves of this category date from the MH II until the LH I period (Chart 14). As it was observed generally for cists, their frequency constantly increased through time.

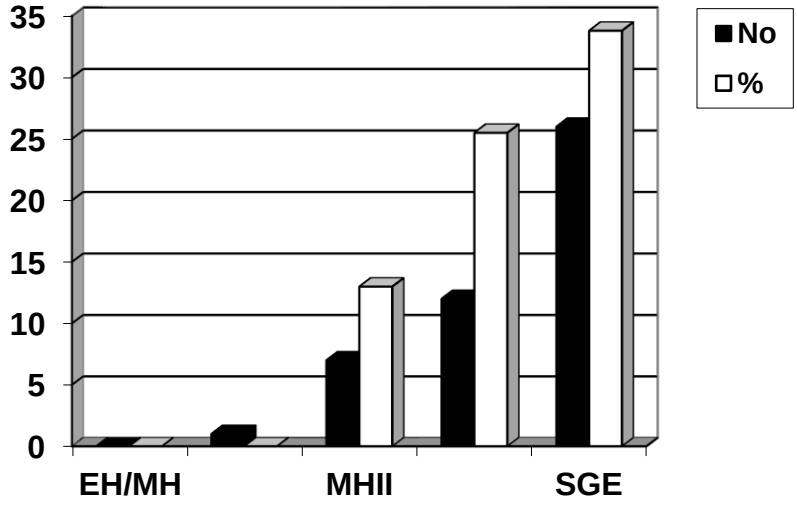

Chart 14: chronological distribution and percentage of cist with vertical slabs

[47] AH3, C-F, B20A-B, BD12, BD19, BE25, BE19, BE20, BE22, BE26, BD21, D5, DE22, DE27, DE29, DE43.

[48] Two cist graves -DE17, DE40- are of unknown sub-type. The position of the first was noticed in the scarp of the trench but it was not excavated and the second was disturbed.

Spatial distribution

Generally, this type of cist was found throughout the settlement. Its frequency, however, was significantly higher in groups B and G (Table 31). The frequency of cists is generally high in group B, while the high frequency of cist A graves in group G is probably related with the age of the deceased.

	Group A	**Group B**	**Group C**	**Group D**	**Group E**	**Group F**	**Group G**
Cist A	0	15	2	1	2	1	7
Total No of graves	13	32	10	11	19	17	25
% of cist A	0	**46.7**	20	9.1	10.5	5.9	**28**

Table 31: distribution and percentage of cist A graves in the burial groups

Age and gender

49 individuals were buried in cists formed with vertical placed slabs. Sub-adults were found in almost the same frequency as adults but their graves are later than those of adults (Chart 15, tables 32, 33). Both males and females were buried in this type of grave (Table 32). The frequency of females, however, was somewhat higher than those of males.

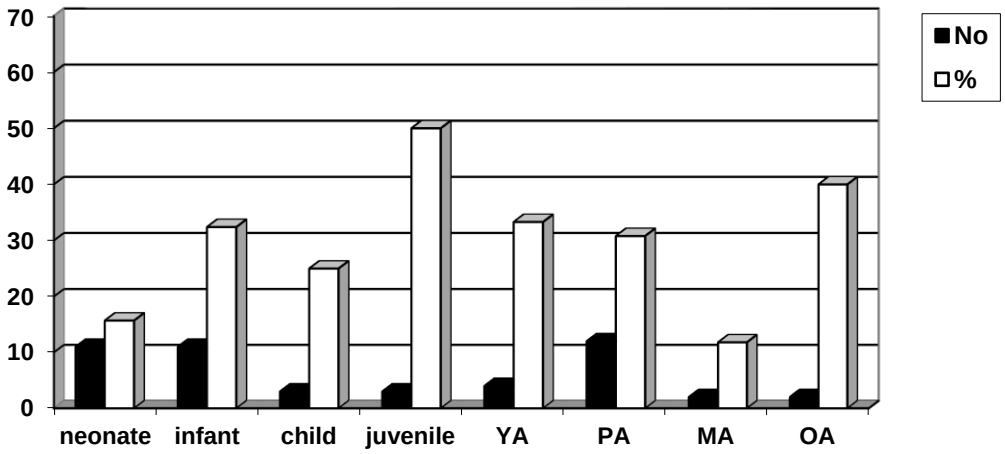

Chart 15: distribution and percentage of cists with vertical slabs in age categories

Sub-adults	25-21.5%		
Juveniles	3-50%	**Male:** -	**Female:** 1
Adults	21-24.1%	**Male:** 11	**Female:** 10
	Total %	**20.4**	**33.3**

Table 32: Cist A distribution in age and sex categories

	Early phases	Late phases
Juveniles-Adults	6	16
Sub-adults	2	22

Table 33: distribution of adult and sub-adult cist A graves through time

Furnishings

Floors have been found in 22 graves (46%) of this category. Almost all of them were made of pebbles. The pebbles were set in clay in one grave (BC3) and the floors were made of yellow clay in two graves (DC4, G1). Floors in this type of graves were used from the MH II period until the LH I period. The burials where floors were found belonged to seven sub-adults and 16 juvenile-adults. Eight of them were males and seven females.

A cover was found in 28 (58%) of the cists made with vertical slabs. The existence of a cover is uncertain in two cists (B11, J3). Usually, stone slabs were used to cover the graves. The size and the number of those slabs varied. In graves BC3 and DC2, which both date from the LH I period, massive slabs were used. In three other graves (BA4, BD15, BD23) layers of stones and clay were used. One of them (BD23) dates from the MH II period and the other two from the transitional MH III/LH I period. Once, a mass of stones covered the grave, or marked its position (DE43-MH III/LH I), and once (BE12-MH III) a circular stone of conglomerate was used. Covers, as well as floors, were in use from the MH II until the LH I period. The covered burials belonged to 17 sub-adults and nine adults, of which four were males and five were females.

It is interesting that floors were more often associated with adult burials, while grave covers with sub-adult burials.

Floors and covers were combined in ten graves. Two of them (BD23, BE26) date from the MH II period and the remaining from the MH III until the LH I period (BC3, BD1, BD15, BE3, D9, DC2, DC4, DE21). These graves belonged to three sub-adults and five adults, of which three were males and two were females. The existence of a cover alongside the floor is uncertain in one grave (J3-MH).

We can comment here that grave floors and covers were more often combined during the late phases and more often in adult burials.

Marker

A grave marker in the form of a mass of stones was found above the infant grave DE46, which dates from the transitional MH III/LH I period. Evidence for grave markers of various forms were found above nine more graves, dating from the MH II until the LH I period (Table 34). Most of them, however, date from the later phases of the settlement. These graves belonged to six sub-adults and three juveniles-adults, no older than PA. The juvenile-adult graves belonged to two males and one female. We see therefore that graves of young individuals only were marked.

Grave	**Marker**	**Type**	**Date**
C-F	?	Ring of stones	MH II
BD16	?	Stele	MH III
D9	?	Ring of stones	MH III
DE45	?	Row of stones	MH III
DE46	+	Mass of stones	SGE
BE6	?	Slabs	SGE
DE21	?	Mass or ring of stones	SGE
DE22	?	Ring of stones	SGE
DE39	?	Ring of stones	SGE
DE43	?	Mass of stones	SGE

Table 34: possible grave markers upon cist A graves

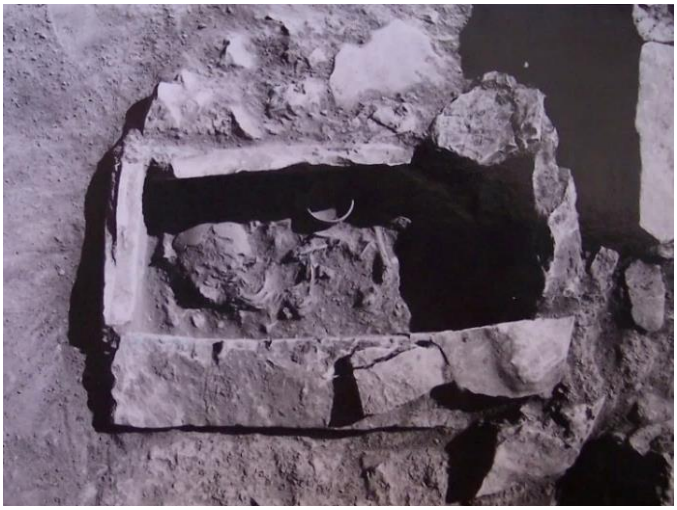

Fig. 44: Cist grave BD1 (Courtesy ASCSA).

Fig. 45: Cist grave BC3 (Courtesy ASCSA).

ii. Cists with walls formed of vertically placed mud-bricks, **brick cist**s (Cist B).

16 graves (7,3% of the cists) were built with bricks (Nordquist 1979, 21) (Fig. 46, 47).[49] Brick cists are probably under-represented, as the mud-bricks are easily dissolved and cannot easily be distinguished during excavation.

Brick cists became more frequent during the late part of the period under study (Chart 16) but some of them also date from the earlier part. However, once again it should be noted that the dating of three of the early brick cists (BC6, DB2, G3) has not been revised by C. Zerner as yet.

It seems that a MH III horizon existed, when the frequency of brick cists was significantly higher.

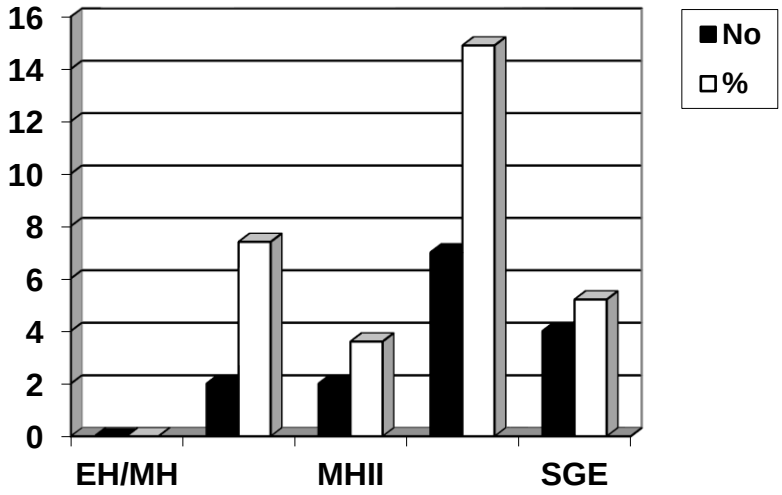

Chart 16: chronological distribution and percentage of brick cist

[49] Two clay cists are also included to this category here.

Spatial distribution

Once again, brick cists were found across the site. In some grave groups, however, their occurrence was higher (Table 35). Their higher frequency was observed in group D, area DE.

	Group A	**Group B**	**Group C**	**Group D**	**Group E**	**Group F**	**Group G**
Brick cists	1	3	1	2	1	1	0
Total No of graves	13	32	10	11	19	17	25
% of brick cists	7.7	9.4	10	**18.2**	5.3	5.9	0

Table 35: distribution and percentage of cist B graves in the burial groups

Age and gender

19 individuals were buried in brick cist graves. Sub-adults and juvenile-adults have been buried in them. The frequency of the later, however, was significantly higher (Tables 36, 37). Moreover, neonates and OA have not been found in this grave type (Chart 17). It is important that most of the individuals buried in brick cists were male adults. As with the cists generally, the sub-adult graves were later than the juvenile-adult graves (Table 37).

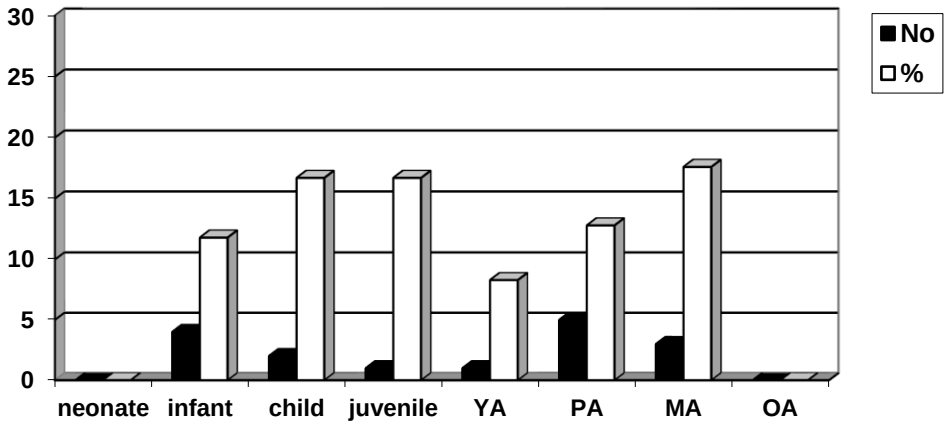

Chart 17: distribution and percentage of brick cists

Sub-adults	6-5.2%		
Juveniles	1	**Male:** 1	**Female:** 0
Adults	12-13.8%	**Male:** 10	**Female:** 3
	Total %	**18.5**	**9.1**

Table 36: Brick cist distribution in age and sex categories

	Early phases	Late phases
Juveniles-Adults	3	9
Sub-adults	1	4

Table 37: distribution of adult and sub-adult cist B graves through time

Furnishings

Floors were found in eleven brick cist graves (68,7%). Most of the floors were made of pebbles. The only exception is the floor of yellow clay found in grave BE11 (MH III, MA-male). The graves with floors belonged to two sub-adults and eight juvenile-adults, of which seven were males and one female.

Brick cist graves were usually uncovered. Grave BE11, next to the clay floor, was the only one having cover slabs. This grave was also the only grave where floor and cover were found combined.[50]

We see therefore that brick cists were not only used mainly for adult males but their graves had furnishings more often than sub-adult and female graves.

Marker

The position of four graves (25%) may have been marked. If these were real markers, brick cists were the most frequently marked type of cists. All of them date from the late part of the period (Table 38). They belonged to one sub-adult and three male adults. Once again, the graves of male adults stand out.

Grave	Marker	Type	Date
BE20	?	Mass of stones	MH III
BE25	?	Mass of stones	MH III
BD12	?	Stele	SGE
D5	?	Ring of stones	SGE

Table 38: grave markers upon brick cist graves

[50] It is not known if the bricks found upon grave DE24-MH III and the pebbles found upon the skeleton's skull and bones in the MH III grave BE25 were placed intentionally or fell accidentally.

Fig. 46: Brick cist grave BE11 (Courtesy ASCSA).

Fig. 47: Brick cist grave BC6 (Courtesy ASCSA).

iii. Cists with walls formed of **horizontally placed stone slabs or irregular stones-** Built cists (cist C) (Nordquist 1979, 21: walled cist).

Only three graves (1,4% of the cists) belong to this sub-category (Fig. 48, 49). Grave BC4 dates from the transitional MH III/LH I phase and graves DC1 and DC3 date from the LH I period. Consequently, this was a very late mode of grave construction which was never widely spread in Lerna. Grave DC1 and especially grave BC4 were of the biggest and deeper cists found in Lerna. [51] Neither grave had a shaft.

[51] BC4: 1.77m x 1.43m, 0.52m depth; DC1: 1.73m x 0.56m, 0.40m depth; DC3: 1.50m x 0.60m, 0.32m depth.

Spatial distribution

Cists with horizontally placed slabs were only found in two areas, DC:2 graves and BC:1 grave. None of the burial groups studied here belong to these areas.

Age and gender

Four individuals were buried in cist graves formed with horizontal slabs or stones. A PA male was found in grave BC4. The three other skeletons, a MA male, a MA female and an adult male, were successive burials in grave DC1. The grave was re-opened twice. Grave DC3 was found empty.[52] Unless grave DC3 belonged to a sub-adult, only adults have been found in this type of grave.

Furnishings

All graves of this sub-category had floors. The floor of grave BC4 was made of hard earth, while pebbles and yellow clay were used in the other two graves. Graves DC1 and DC3 were covered with large stone slabs. In these two graves the covers were combined with floors.

Marker

Markers have not been found in association with graves of this sub-category.

Fig. 48: Built cist grave BC4 (Courtesy ASCSA).

[52] The skeleton had been disintegrated or had been removed, except from one or two fragments of bone, apparently those of a child (Blackburn, 1971, 177).

Fig. 49: Built cist grave DC1(Courtesy ASCSA).

iv. **Mixed type:** cists with some walls formed of vertically and some of horizontally placed slabs or mud-bricks or house walls (cist D)**.**

14 graves (6,4% of the cists) were of mixed type (fig. 50). Most of them cluster in the MH III and the MH III/ LH I periods. Only one grave (AH3) dates to the MH I but, once again, the date of this grave has not been revised by C. Zerner yet (Chart 18). As with the brick cists, a MH III horizon seems to have been existed.

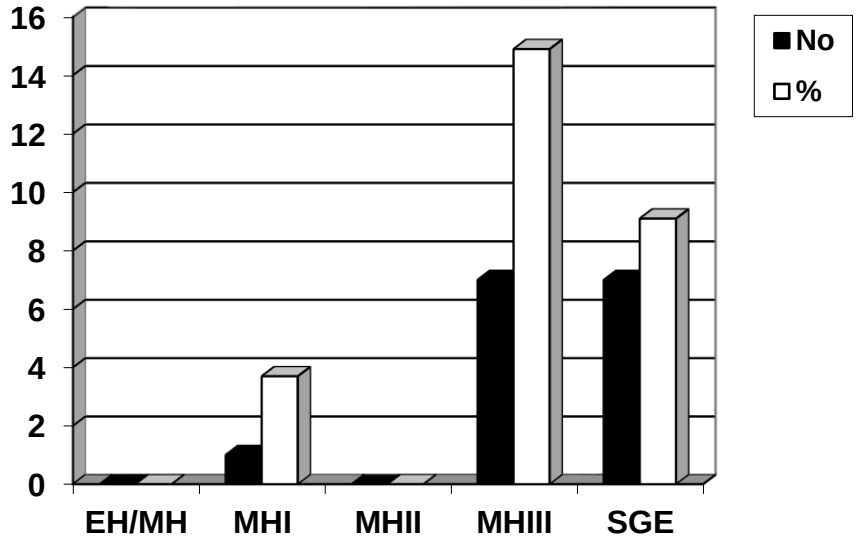

Chart 18: chronological distribution and percentage of cist D graves

Spatial distribution

Mixed type cists were found across the settlement. Their distribution is similar with brick cists. Their higher frequency was observed in groups C and E, but the actual number of graves found in each group is very small (Table 39).

	Group A	**Group B**	**Group C**	**Group D**	**Group E**	**Group F**	**Group G**
Cist D	0	1	2	1	3	1	1
Total No of graves	13	32	10	11	19	17	25
% of cist D	0	3.1	**20**	9.1	**15.8**	5.9	4

Table 39: distribution and percentage of cist D graves in the burial groups

Age and gender

13 individuals,[53] sub-adults and adults, were buried in mixed type cist graves (Chart 19). The percentage of adults, however, was higher. Interestingly, a high percentage of children were buried in this grave type. Moreover, the percentage of females was significantly higher than males (Tables 40, 41).

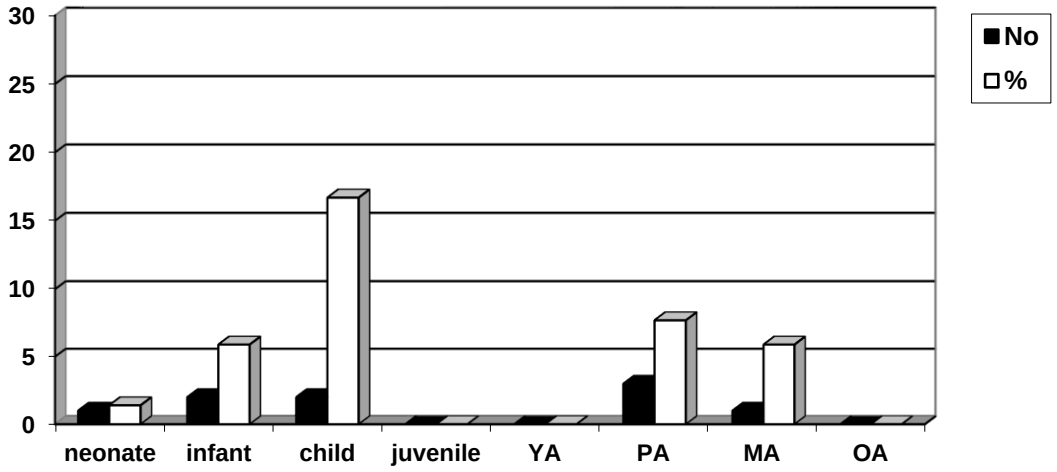

Chart 19: distribution and percentage of cists D in age categories

Sub-adults	5-4.3%		
Juveniles	0	**Male:** 0	**Female:** 0
Adults	8-9.2%	**Male:** 2	**Female:** 5
	Total %	**3.7**	**15.2**

Table 40: Cist D distribution in age and sex categories

[53] A skeleton was not preserved in the MH III grave DE58.

	Early phases	Late phases
Juveniles-Adults	1	7
Sub-adults	0	4

Table 41: chronological distribution of adults and sub-adults buried in cist D graves

Furnishings

Floors were found in three cist graves of mixed type (21.4% of the mixed type cists). One floor was of the usual pebble-type (DE60), in another (DE27) pebbles and bricks were combined and in the third (AH3) a stone slab was found under the pebble layer. We see therefore that no standardisation in floor construction existed. One of the graves with floor dates from the MH I period and two from the MH III period. They belonged to one sub-adult and two adults, of which one was female. No pattern emerges.

Seven cists of the mixed type (50% of the mixed type cists) had cover slabs. In one grave (AH3) it is uncertain whether the stone paving upon the grave was used as cover or as marker. All mixed type graves with cover date from the MH III and the MH III/LH I periods. The covered cists belonged to four sub-adults and three adults of which one was male and two females. Again, no pattern emerges.

Floor and cover were combined once (DE27). This grave was that of an infant and it dates from the MH III period.

Marker

The only possible grave marker, as it has been already mentioned, was found upon grave AH3, dating from the MH I period (date not revised). It had the form of a large oval paving of small stones centred over the grave. An adult individual of unknown sex was buried there.

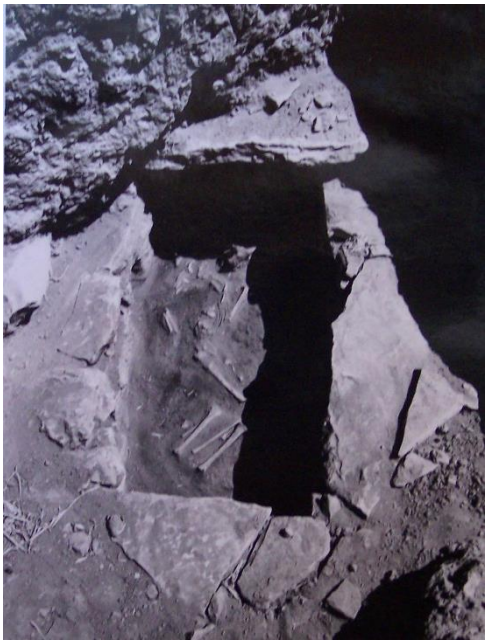

Fig. 50: Mixed type cist grave DE27 (Courtesy ASCSA).

v. **Semi-cist graves**: only some of the sides, usually two, were formed of slabs, stones, bricks or an adjacent wall (cist E).

17 semi-cist graves (7,8% of the cists) have been found at Lerna (Fig. 51, 52). Actually, the number of semi-cist graves is probably smaller, as three of them (J2, J4A, J4B) were sunk among fallen stones. Consequently, it not easy to say whether some of the stones were deliberately used as walls of the graves. The same is true for three other graves which were found next to a wall or were cut into a previous wall (DE6, DE63, DE41). The house walls may not have been used deliberately as sides of the graves. These six graves may have been simple pit graves. Additionally, some of the semi-cist graves may have been disturbed cists, missing some of their sides. Semi-cist graves first appear in the MH II period and were in use until the LH I period. Their occurrence steadily increased through time (Chart 20).

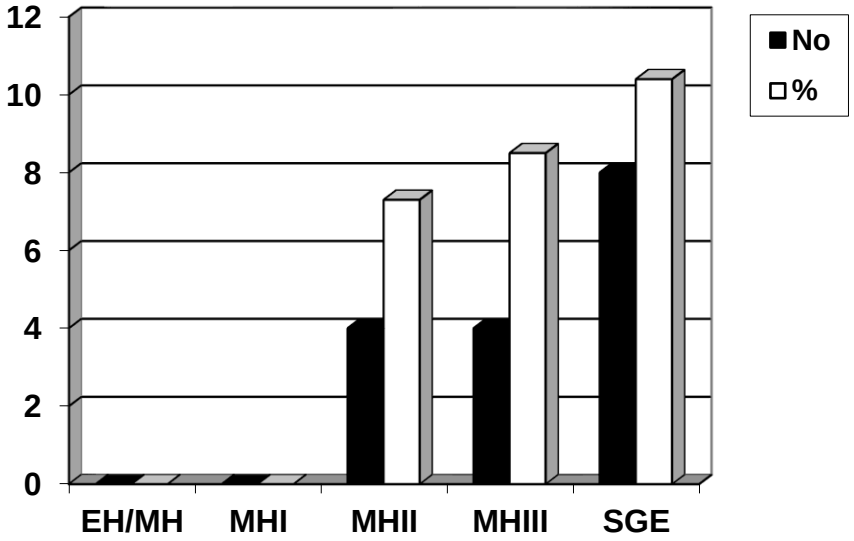

Chart 20: chronological distribution and percentage of cist E graves

Spatial distribution

Semi-cist graves were found across the settlement. Their higher frequency was observed in group D, but again numbers are too small to have statistical value (Table 42).

	Group A	**Group B**	**Group C**	**Group D**	**Group E**	**Group F**	**Group G**
Cist E	1	2	0	2	2	2	3
Total No of graves	13	32	10	11	19	17	25
% of cist E	7.7	6.2	0	**18.2**	10.5	11.8	12

Table 42: distribution and percentage of cist E graves in the burial groups

Age and gender

16 individuals were buried in semi-cist graves.[54] In contrast with brick-cists and mixed type cists, most of them were sub-adults. Adult males and females were buried in semi-cist graves (Chart 21, Tables 43, 44).

[54] Only few tiny fragments of bones were preserved in grave DE44 and they have not been studied.

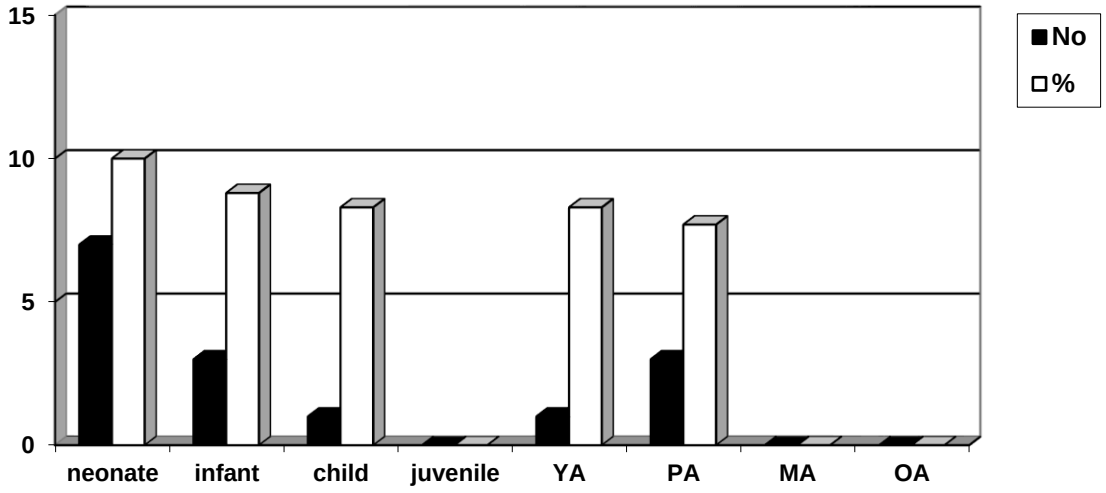

Chart 21: distribution and percentage of cists E in age categories

Sub-adults	11-9.5%		
Juveniles	0	**Male:** 0	**Female:** 0
Adults	5-5.7%	**Male:** 3	**Female:** 2
	Total %	**5.5**	**6.1**

Table 43: Cist E distribution in age and sex categories

	Early phases	**Late phases**
Juveniles-Adults	1	2
Sub-adults	1	8

Table 44: chronological distribution of adults and sub-adults buried in cist E graves

Furnishings

Pebble floors have been found in four semi-cist graves (23,5% of the semi-cists). One of them (J4B) dates from the MH II period, two (DE44, J4A) date from the SGE and the last (J2) dates generally from the MH period. In grave DE41 the skeleton lay on the lower courses of a previous wall. However, we cannot say if the wall was intentionally used as floor for the grave. Semi-cist graves with floor belonged to adult individuals, of which three were males and one was female.

Six semi-cist graves (37,5% of the semi-cists) were covered with stone slabs. These graves date from the MH II until the LH I period. They all belonged to sub-adults.

Cover slabs and pebble floor co-existed only once (DE44-LH I). The skeletal remains from this grave were badly preserved and they were not studied.

We see therefore that floors were found in adult graves, while covers were found in sub-adults semi-cist graves.

A layer of pebbles found above the skeletons in two SGE graves (DE6: neonate, J4A: male) may have belonged to a skeleton cover.

Marker

Three stones in a row found above the MH III grave DE 51 may have served as grave marker.

A neonate was buried in this grave.

Fig. 51: Semi-cist grave J2 (Courtesy ASCSA).

Fig. 52: Semi-cist grave DE6 (Courtesy ASCSA).

If we compare cist types we observe certain differences between them. For example, brick cists were mainly used for male adults, had more furnishings and were more

frequently marked, while they seem to cluster spatially and temporally. Cists with walls formed of horizontally placed stone slabs also had more furnishings than other cist types, they were large, they were found in certain areas of the settlement and they date from the late phases. Only adults have been found in them. Although clear-cut divisions are missing, the data indicate that there were some preferences for specific categories buried in each cist type. Age and to a lesser extent gender was an important criterion for this selection. Nevertheless, no strict rules were applied.

d. Shaft graves

Two shaft graves of the type found in the Grave Cycle B at Mycenae have been found at Lerna (Caskey 1955, 33-34; 1956, 155-157; Lindblom 2007) (Fig. 53).[55] Their sides were built of rows of horizontally placed slabs pointed with yellow clay. Their construction was thus similar with built cists but their size was much larger. The interior dimensions of Shaft Grave 1 were 3.20m x 1.25m and of Shaft Grave 2 were 2.95m x 1.30m. Upon the cists a deep shaft was found. The depth from the upper end of shaft to the grave floor was 2.75m for Shaft Grave 1 and 3.20m for Shaft Grave 2. A large quantity of broken fine MH and early Mycenaean pottery and animal bones were found in those shafts.

Both graves date from the late LH I-LH IIA period. They were located at the central part of the excavated area, more or less parallel to each other. They were aligned to the N-S axis, but they do not seem to follow the orientation of an older house. Shaft Grave 1 had been cut into the debris of the EH II House of the Tiles and Shaft Grave 2 (5m to the east of Shaft Grave 1) was cut down the debris of the MH I House 98A, but also destroyed the NE corner of the House of the Tiles (Fig. 54). The tumulus that covered the House of the Tiles after its destruction was a standing monument in the settlement and no building or burial activity had encroached upon it for centuries. Thus the association of the two shaft graves with the tumulus must have had a strong symbolical meaning.

Age and gender

The skeletons of both graves had been removed in antiquity, probably during the LH III period. Consequently, it is not possible to know neither the age and sex, nor the

[55] Blackburn (1970, 168-171, 171-173) treats these graves as an elaborate type of cist with walls formed with horizontally placed slabs. Material from the graves and from the shafts above them has been studied and it will be published by M. Lindblom.

numbers buried in each grave. Few foot bones, probably of an adult, were the only skeletal remains found during the excavation of Shaft Grave 2. However, these bones have been lost and they have been never examined by an anthropologist.

Furnishings

Both graves had floors carefully made of pebbles.

The earth inside Shaft Grave 1 contained some fallen stones, including one large broken slab. The presence of these stones and slabs may indicate the existence of a roof that consisted of wooden beams covered by stone slabs. A layer of red-brown clay was lay above the grave, after the removal of the bones to seal it.

No cover was found upon Shaft Grave 2. However, a heap of clay and small stones that lay fallen in the middle of the grave may have originally belonged to a cover. A niche with LH III sherds was found in the south edge of the same grave. The LH III sherds probably indicate the date when the grave was re-opened and the bones together with any offerings were removed. In the cist two fine cups and few bits of bronze were left.

Marker

No marker was found over the two shaft graves. It should be mentioned, however, that the top of the shafts was close to the modern surface and any markers may have been removed.

The two shaft graves, although robbed, are the most elaborate grave type found at Lerna. Their spatial association with the tumulus over the House of the Tiles gives a special status to the group who buried their dead in them.

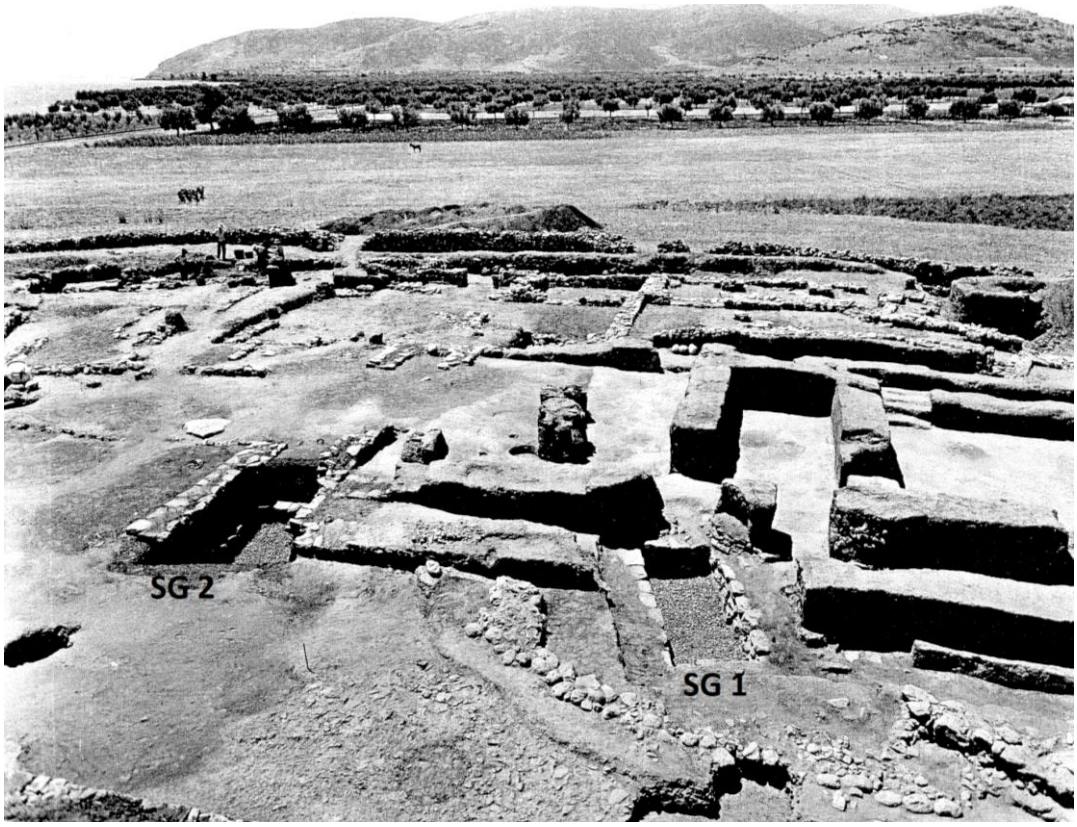

Fig. 53: The two Shaft Graves (Courtesy ASCSA)

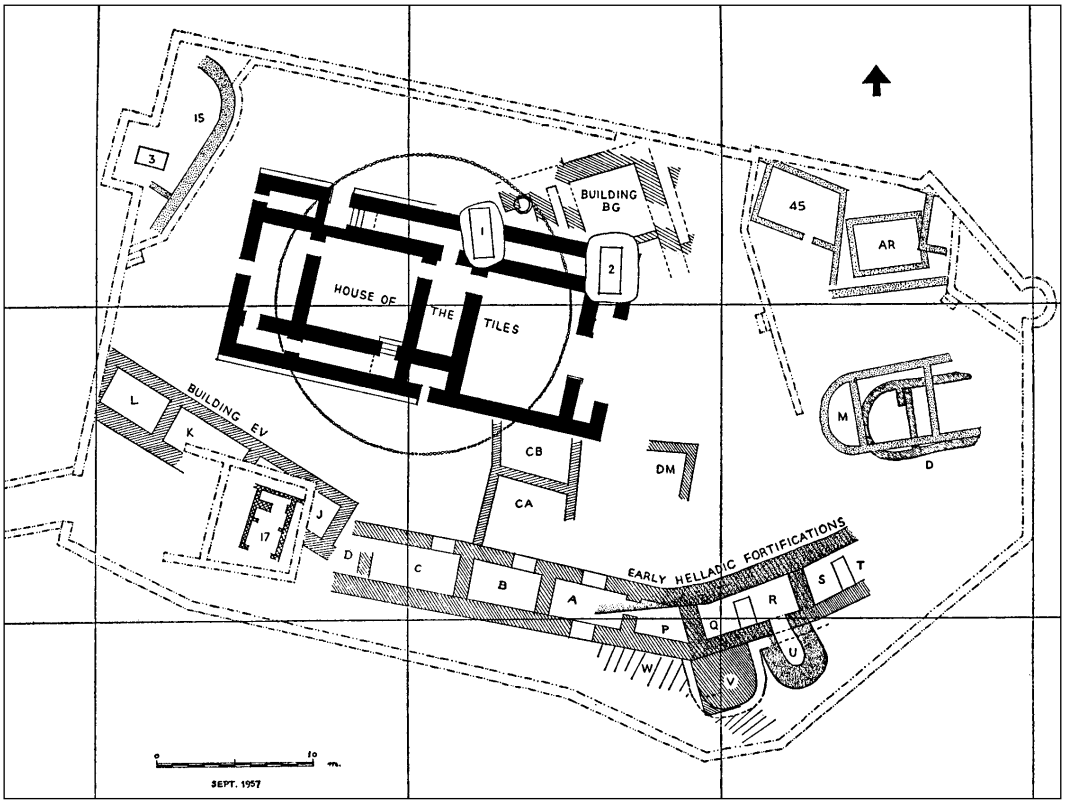

Fig. 54: The two Shaft Graves in relation to the House of the Tiles (from Caskey 1958, fig. 1)

e. Stray bones: disarticulated bones found loose in the soil.

Eight burials (3,6%) at Lerna consist of stray bones (Chart 22). The type of grave in which the individual was once buried is unknown either because the grave was disturbed in later times, or because the bones were removed from the grave. Disarticulated bones belonging to seven individuals[56] were found in the shaft above the MH II grave BE 30 (grave BE). According to Blackburn (1970, 42) the stray bones derived from a disturbed burial earlier than grave BE 30. Thus, she dates the disarticulated bones to the MH I period. Each individual was represented by few skeletal remains.

In the remaining seven burials stray bones belonged to a single individual. It is worth noting that six of them that are dated belong to the early part of the MH period. This pattern points either to a recurrent practice of removing bones from the original grave or to accidental disturbance of the earlier layers by later building and burying activity. In contrast, extra bones from inside graves date primarily to the late MH phases.

Although a detailed anthropological analysis has not been carried out, from the available data we can assume that stray bone material consists primarily of skull and long bone fragments (Table 45). On the contrary, all skeletal parts are represented in extra bones found in the graves.

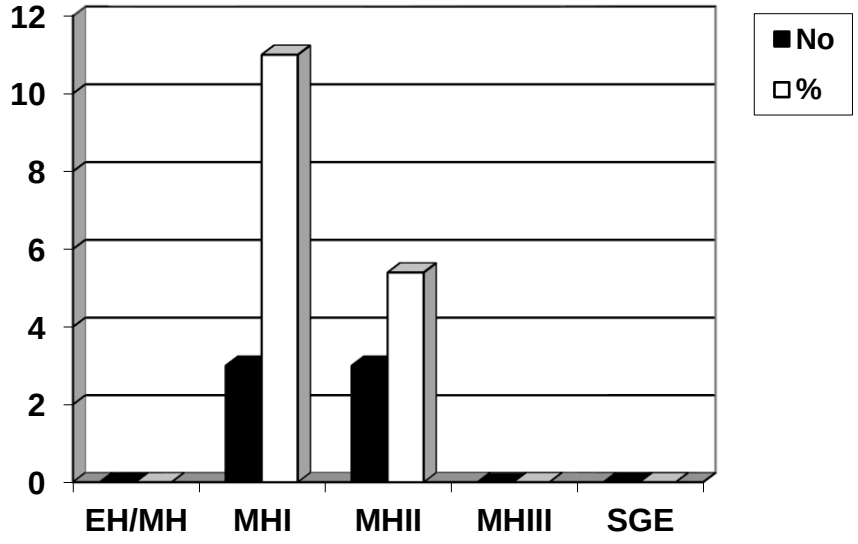

Chart 22: chronological distribution of stray bones

[56] These skeletons were originally studied by Angel (1971, 54-55) but they were not re-studied, as they were not found in the Lerna apotheke (2004).

Grave No	Skeleton No	Date	Body part
A 2,3,4	3Ler	MH II	Skull fragments (Angel 1971, 47; Triantaphyllou, in preparation)
B	72Ler	MH	Skull, shoulder (Angel 1971, 47; Triantaphyllou, in preparation)
BD 8	Not studied	MH	Few bones (Blackburn 1970, 117-8)
BD 18	94Ler	MH I	Skull fragments (Angel 1971, 49; Triantaphyllou, in preparation)
BD 22-BD 25	98Ler	MH I	Skull fragments (Angel 1971, 4; Triantaphyllou, in preparation 9)
BE	243Ler	MH I	Skull fragments, long bones (Angel 1971, 54-55)
BE	244Ler	MH I	Rib, hand (Angel 1971, 54-55)
BE	245Ler	MH I	Skull fragments, post cranial bones (Angel 1971, 54-55)
BE	246Ler	MH I	Leg bones (Angel 1971, 54-55)
BE	247Ler	MH I	Partial skeleton (Angel 1971, 54-55)
BE	248Ler	MH I	Long bones (Angel 1971, 54-55)
BE	249Ler	MH I	Partial skeleton (Angel 1971, 54-55)
DE 49	Not studied	MH II	Few bones (Blackburn 1970, 53-4)
B 21B	Not studied	MH II	Few bones (Blackburn 1970, 85)

Table 45: stray bones

Spatial distribution

The eight burials, where only stray bones were found, clustered in two areas: in the adjacent groups A, B and C (5) and in area BD (3).

Age and gender

14 individuals were represented in the stray bone material.[57] In graves B 21B, BD 8 and DE 49 only few bones were found and they were not studied.[58] The 11 skeletons that were studied (Angel 1971; Triantaphyllou in prepararion) belong primarily to sub-adult and young adult individuals (Chart 23). In contrast, extra bones from inside the graves belong mainly to adults. Concerning the sex of the adult individuals, most of them were females. The only male (burial B) was the oldest individual (Table 46).

A detailed anthropological analysis of all the available stray bone material is required in order to clarify if the correlation between stray bones, early MH date, young individuals and female adults represents a real pattern.

[57] Excluding those found among the animal bones by D. Reese (see below in this chapter).
[58] According to the excavators BD8 and DE49 were probably adults, while B21B was probably infant.

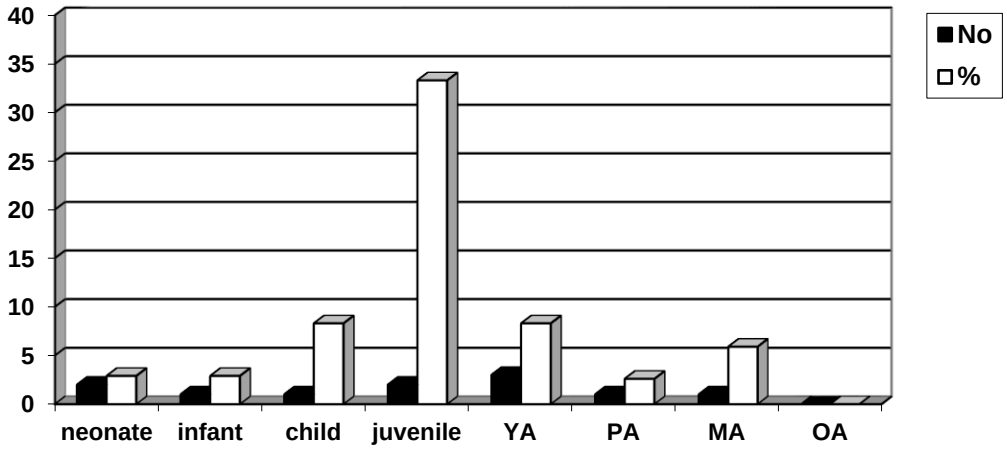

Chart 23: distribution and percentage of stray bones in age categories

Sub-adults	4-3.4%		
Juveniles	2-33.3%	**Male:** -	**Female:** -
Adults	5-5.7%	**Male:** 1	**Female:** 4
	Total %	**1.8**	**12.1**

Table 46: Stray bone distribution in age and sex categories

Many more loose human bones have been found between the animal bones of the settlement (Appendix I).[59] More precisely, in 66 excavation loti human skeletal remains have been found (Reese, September 2004; 2008). Their quantity varies from few to several bones from the same individual. Most of them belong again to sub-adults. It should be stressed, however, that these bones have not been studied by an anthropologist as yet. Nevertheless, it is interesting that most of them were, once more, found in earlier MH layers (MH I-II). The notes made by the animal bone specialists on the human remains found among animal bones confirm the proliferation of sub-adults in the loose bone material (Appendix I). The presence of more sub-adult, especially neonate and infant, stray bones may indicate different treatment of these age categories or may be the result of the excavation techniques. The neonate and infant bones are easily confused with animal bones and some of their graves may have been overlooked during the excavations (Ingvarsson-Sundström 2003; 2008).

Many disarticulated bones, primary sub-adult, were also found at the settlement of Kastraki at Asine as we will see later (chapter 2.3.2) (Ingvarsson- Sundström 2002;

[59] D. Reese and S. Triantaphyllou personal communication. I would like to thank David Reese for providing me information in advance of publication.

2003; 2008). There the researcher concludes that the disarticulated bones found loose in the soil are the result of accidental disturbances of earlier burials, primarily sub-adult, or sub-adult burials that were overlooked during the excavations.

To conclude, the existence of disarticulated human bones found loose in the soil, missing a grave context, indicates, first of all, that the burial use of the settlement was more intensive than we thought. The proliferation of sub-adult bones, found in early MH strata, favours the hypothesis that these bones are the result of later disturbances of earlier burials, presumably pits. The predominance of skull and long bone fragments is not surprising, as those skeletal parts are the best preserved.

1.3.3 Mode of disposal

One of the basic characteristics when describing a burial is the mode of disposal of the deceased inside the grave**.** The mode of disposal informs us about social differentiation and about burial ideology. Here age and gender differentiation and status and kin positions will be examined on spatial and temporal terms. Three aspects will be analysed: single versus multiple burials, primary versus secondary treatment and body position and orientation.

a. Single and multiple burials

The main question addressed here is whether personal or collective/group identities of the deceased are emphasised inside the grave.

All the burials found at Lerna were inhumations. The vast majority of them were single burials (179; 81%). However, ten double and six multiple (16; 7,3%) burials have also been found. It is not clear whether the remaining 25 burials were single, double or multiple for several reasons: they were not excavated (C-J, C-K, DE 69, F 2) or not fully excavated (DE 17); no bones were found in the grave (B 8, B 11, BE 21, BE 31, DE 58, GK 1, SG 1); few bones were preserved and they were discarded or, finally, because it was not clear whether the skeletal remains of more than one individuals were deliberately buried together (B 20A-B, BE 17, DE 68).

The most common combination in double burials (4 graves) was two men buried together. In two graves a male and a female were found and in two other graves two neonates were buried together. Once, a neonate was buried together with a man, while no neonate or infant was found together with a woman. It is interesting that, with the exception of the man with the neonate, the individuals buried together were usually of

similar age. In the multiple burials on the other hand, various combinations of age categories and sexes existed and no obvious pattern can be discerned.

Double and multiple burials are found in all chronological phases from the beginning of the MH until the LH I. Their higher frequency, however, is observed during the MH I period, while it rises again during the late part, MH III-LH I (Table 47).

Date	EH/MH	MH I	MH II	MH III	SGE	MH	Post SGE
No of burials	0	4	3	4	3	2	1
%	0	**14.8**	5.5	8.5	3.9	-	-

Table 47: chronological distribution and percentage of double and multiple burials

However, we should be conscious of the different significance of multiple or double burials made at the same time and those resulting from later re-opening of a pre-existed grave. It is true that the practice of re-opening a grave in order to bury a new individual is a late practice in other sites and sets in at Lerna during the MH III period. However, it was never widely practiced here (BE 19-MH III; DC 1-LH I; J 3-MH; BD 3-post SGE).

The spatial distribution of double and multiple burials is of interest. The majority of them (13) cluster together in areas BE (6 burials), south DE (3 burials), A (2 burials) and J (2 burials). The adjacent groups A, B and C have a relatively high percentage of double and multiple burials (Table 48). This implies that certain groups follow shared practices.

	Group A	**Group B**	**Group C**	**Group D**	**Group E**	**Group F**	**Group G**
Double/multiple burials	2	4	2	0	0	0	1
Total No of graves	13	32	10	11	19	17	25
%	**15.4**	**12.5**	**20**	0	0	0	4

Table 48: distribution and percentage of double and multiple burials in the burial groups

To conclude, double and multiple burials were rather exceptional at Lerna throughout the period under study. It can thus be suggested that the individual status of the deceased

was emphasised most of the times. Age seems to have been the decisive criterion for a double burial. However, the possibility cannot be excluded that the individuals buried together in double and multiple burials were also kin related. The spatial distribution of those burials may indicate that some groups were more aware in emphasising their common identity.

b. Primary and secondary treatment

The secondary treatment of the human skeleton raises issues of burial ideology, but also of kin relations and memory, which will be our focus here. Secondary treatment is generally not easy to define, as it may take different forms: a typical secondary burial, where the bones are collected and re-buried; missing bones from otherwise undisturbed burials; pushed-aside skeletons and finally, it may be inferred by extra bones found together with primary burials. The picture may be further confused by poor preservation or documentation. Here not only typical secondary burials but any intentional disturbance of the human skeleton will be discussed.

At Lerna only one typical secondary burial has been found. This burial dates from the MH III period. The disarticulated bones of an OA male (B 24-69Ler) were collected and re-buried at the south end of MH III grave B 17, when this grave was constructed (Fig. 54). In 21 graves, however, some bones were missing from an otherwise undisturbed grave (25 skeletons), or the skeletons were pushed aside or intentionally disturbed (9 skeletons).

Fig. 54: Secondary burial B24 (Courtesy ASCSA)

In total, secondary treatment has been attested in 35 skeletons (15.5%).[60] These skeletons belong mainly to juveniles-adults (25 skeletons), while males (11) and females (8) are almost equally represented. Eight other skeletons, on the other hand, have been disturbed by chance and the same may have been true for six more skeletons. For 34 skeletons we do not know whether they were intentionally disturbed or not, mainly because the information about the burial is incomplete and no photograph has been taken or published. The remaining 143 skeletons (63.3%) are complete and articulated.

In addition, as we have seen in section 1.3.2, in 36 graves disarticulated bones from a second individual have been found in association with a primary burial suggesting possible secondary treatment of the skeletons in which the extra bones belonged. Actually, in ten out of the 49 individuals represented by extra bones, there is evidence of possibly articulated or semi-articulated anatomical units such as feet, hands, thorax, one case of a hip joint and one cranium (Triantaphyllou, in preparation). Moreover, the occurrence of extra bones in primary burials increases during the late part of the period and those bones belong primarily to juveniles-adults, whose skeletons were more possible to receive secondary treatment. In those cases, it is possible that earlier disintegrated body parts or disarticulated skeletal elements were left in situ during the latest burial.

Moreover, skeletons from which some bones were missing were mainly found in later MH and LH I strata (Table 49). Primarily the skulls were missing and thus they must have been treated differently (Table 50). The absence of skeletal parts from some skeletons is related with re-opening of the graves. Although these are not typical secondary burials, they represent some kind of secondary treatment of the skeleton.

Pushed aside and disturbed skeletons also date mainly from the later part of the MH and LH I periods (Table 49). This temporal pattern, together with the pattern emerging from the missing bones, indicates that the practice of re-opening a grave became more common towards the later part of the period under study.

Finally, only occasionally was a disarticulated skeleton (B 24-MH III) or some skeletal parts (DE 35-MH II) re-buried in a different place than the primary burial (usually in the vicinity of the first burial) (Table 49).

[60] The 49 individuals represented by extra bones found during the anthropological study (Triantaphyllou, in preparation) are not included here.

The spatial distribution of graves where any kind of secondary treatment has been attested with some certainty is interesting (Table 51). Group B reveals significantly higher percentage of burials with intentionally disturbed skeletons. It seems that the graves in this area were more often re-opened indicating that they were remembered and revised for some time. This pattern fits well with the relatively higher incidence of double-multiple burials in the same group. It can thus be suggested that kin relations or shared identities were emphasized more by the people burying their dead in this part of the settlement.

	Stray bones	**Bones missing from articulated skeletons**	**Pushed/ disturbed bones**	**Secondary burials**	**Total**
EH/MH	0	0	0	0	**0**
MH I	9	1	0	0	**10**
MH II	3	2	2	1	**8**
MH III	1	1	2	1	**5**
SGE	0	7	5	0	**12**
Total	**13**	**11**	**9**	**2**	**35**

Table 49: secondary treatment (No of skeletons)

	Skull	**Skull+ few other bones**	**Limbs**	**Post-cranial skeleton**
Bones missing from articulated skeletons	4	4	2	2

Table 50: skeletal composition of missing bones

	Group A	**Group B**	**Group C**	**Group D**	**Group E**	**Group F**	**Group G**
Secondary treatment	1	7	1	1	1	1	2
Total No of graves	13	32	10	11	19	17	25
%	7.7	**21.9**	10	9.1	5.3	5.9	8

Table 51: distribution and percentage of secondary treatment in the burial groups

To conclude, although typical secondary burials are exceptional, secondary treatment of the skeleton resulting from re-opening of the graves increased during the late phases of the period under study. Group B reveals the higher percentage of secondary treatment.

c. Body position and orientation

The study of body position and of the orientation of the skeleton inside the grave can be informative of age and gender differentiation and can be used to check the coherence in practices of the grave groups. It also raises questions of standardisation in the mode of disposal of the dead.

All the available excavation photographs kept in the Lerna storeroom at Argos Museum were consulted in order to check and correct body position given in the publication. The re-examination of the photographs revealed that more individuals were buried on their back with their legs either on left or right than mentioned in Blackburn's dissertation (59 instead of 33). The total number of individuals buried in prone position proved also to be higher (12 or 13 instead of 8). A detailed description of arm position was also made based on photographs and published plans. The corrected body positions are used in the analysis bellow.

i. body position

The vast majority of the deceased at Lerna were buried in contracted position (158 skeletons, 69.5%). The term contracted refers mainly to the position of the lower limbs, which were bent towards the upper body. The degree of contraction may vary from tightly to loosely contracted. The upper body, however, could lay on the side, on the back or, more seldom, on the stomach.

Few deceased (14 skeletons, 6.2%) were buried in extended position. Again, the term refers mainly to the position of the lower limbs. Usually the upper body lay on back but few skeletons lying extended on stomach or on side have also been found. Five skeletons were lying on their back but we cannot say whether the lower limbs were contracted or extended either because these skeletal parts were missing or because they were disturbed. Two skeletons were lying on their left and right side respectively but it is not clear whether they were contracted or extended.

Finally, no information is available for the body position of 47 skeletons (20.4%). These skeletons belong primarily to neonates and infants and to a lesser extent to intentionally

or unintentionally disturbed burials, where the original body position is not preserved (Table 52).

Lower limbs position	Upper body position	Side of legs	Total
CONTRACTED	**On side:** 88	Left: 36	**158 skeletons 69.5%**
		Right: 50	
		Unknown: 2	
	On back: 59	Left: 29	
		Right: 27	
		Legs bent over body: 2	
		Unknown: 1	
	On stomach: 11	Left: 1	
		Right: 9	
		Unknown: 1	
EXTENDED	**On side:** 3	Left: 1	**14 skeletons 6.2%**
		Right: 2	
	On back: 9		
	On stomach: 1 or 2		
UNKNOWN	**On side:** 2	Left: 1	**7 skeletons 3.5%**
		Right: 1	
	On back: 5		
UNKNOWN	**Unknown:** 47		**47 skeletons 20.4%**
		Total	**226 skeletons**

Table 52: body position

If we examine the chronological distribution of the various body positions, we observe that the three main categories, namely contracted on side, contracted on back and extended on back, co-existed throughout the period under study (Chart 24). However, their frequency was not always the same.

Extended skeletons, for example, became relatively more frequent towards the end of the MH and the beginning of the LH period but they never predominate (Blackburn 1970, 290). During the MH I-MH II period mainly sub-adults (3 neonates-infants) were found in extended position. The only exception is a PA male skeleton (217Ler) that was found in a MH II grave –usually called 'the warrior grave'. This grave (J4B) is exceptional not only for the body position of the deceased but also for the grave offerings.[61] In the next MH III period only neonate-infant were buried extended (1 or 2). Adult extended skeletons are found again in LH I period and they belong both to males (1 or 2 skeletons) and to females (1 skeleton).

If we compare the frequency of skeletons buried contracted on their sides and skeletons buried contracted on their back, we observe that the first predominate in every phase (Chart 24). However, as the time passes gradually more individuals were buried contracted on their side than on their back. It becomes thus obvious that the contracted on back body position cannot be seen as an intermediate stage between the contracted on side and the extended position, as it first appears in MH I and its frequency declines through time.

[61] Offerings comparable to and contemporary with Aegina Shaft Grave (Kilian-Dirlmeier 1997): L913: jug; L914: kantharos; L1054: kantharos; L1052: Kamares jar; L6.314: bronze razor blade or knife.

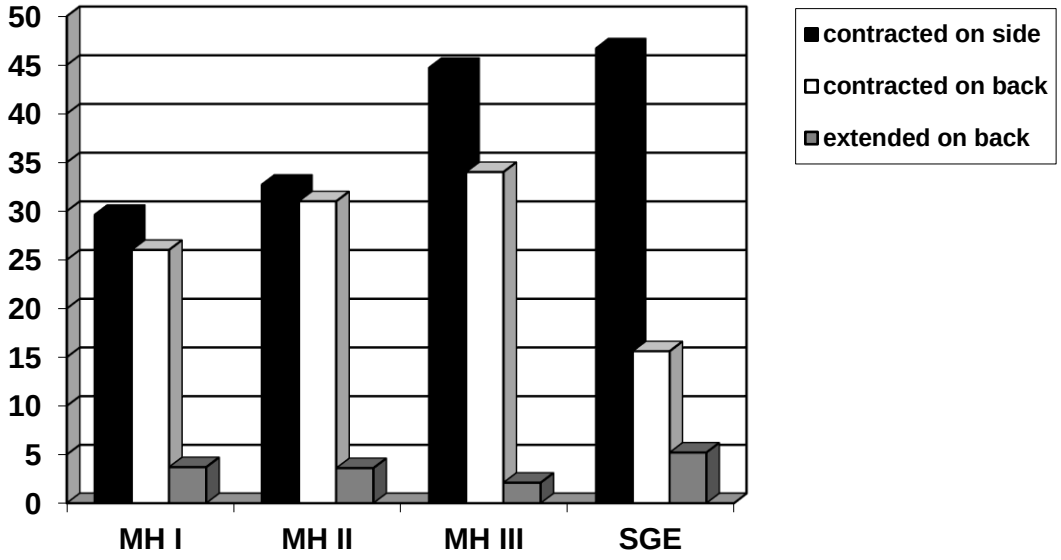

Chart 24: frequency of body positions in each period

If we now examine the age and sex composition of the contracted skeletons we observe that sub-adults were more often buried contracted on their side and less often on their back. Males were buried slightly more often contracted on their sides than on their back. On the contrary, females were usually buried contracted on their back (Table 53). Although no age category and no sex grade were excluded from any body position, it seems that body position of sub-adults and women was more standardized than of men.

	Sub-adult	**Juveniles**	**Adults**	**Males**	**Females**
Contracted on side	50.4% (N=60)	33.3% (N=3)	26.4% (N=23)	33.9% (N=19)	11.8% (N=4)
Contracted on back	17.6% (N=21)	55.5% (N=5)	34.5% (N=30)	28.6% (N=16)	41.2% (N=14)

Table 53: percentage of body position in age categories and sex grades

This observation is not confirmed by the correlation between body position- side- date- age and gender. As we can see in the tables below (Tables 54, 55, 56) the rules concerning the side in which individuals were buried were stricter than body position for both sexes. There is a clear preference/ tendency in burying females on their left side and males on their right side (Nordquist 1979, 17; Ruppenstein 2010). However, once more, there is no clear dichotomy as few females were buried on their right side and some males on their left. Thus, gender was not an absolute criterion.

In the sub-adult skeletons on the other hand, no clear pattern concerning the side in which they were buried emerges. Nevertheless, quite more were buried on their right side than on their left. It can be suggested that the biological sex of sub-adults also influenced the side on which they were buried. Actually, the child (123Ler), which according to aDNA analysis was male, was buried on his right side.

Finally, no chronological pattern emerges concerning the preference in the left or right side.

Position	**Date**	**Sub-adults**	**Juveniles**	**Males**	**Females**	**Total**
Contracted on left side (N=36)	**MH I**	3	0	0	1	**4**
	MH II	3	1-M	2	1	**7**
	MH III	6	1	0	2	**9**
	SGE	14	0	1	1	**16**
	MH	0	0	0	0	**0**
	Post SGE	0	0	0	0	**0**
	TOTAL	**21.8% (N=26)**	**22.2% (N=2)**	**5.4% (N=3)**	**14.7% (N=5)**	
Contracted on right side (N=54)	**MH I**	3	0	2	0	**5**
	MH II	7	0	4	1	**12**
	MH III	9	0	4	0	**13**
	SGE	14	4	6	0	**24**
	MH	0	0	0	0	
	Post SGE	0	0	0	0	
	TOTAL	**27.7% (N=33)**	**44.4% (N=4)**	**28.6% (N=16)**	**2.9% (N=1)**	

Table 54: correlation between date-age-sex-side in contracted on their side skeletons

Position	Date	Sub-adults	Juveniles	Males	Females	Total
Contracted on back and left (N=28)	**MH I**	1	0	1	1	**3**
	MH II	1	3-F	1	5	**10**
	MH III	4	0	3	3	**10**
	SGE	1	0	1	1	**3**
	MH	0	0	0	2	**2**
	Post SGE	0	0	0	0	**0**
	TOTAL	**5.9% (N=7)**	**33.3% (N=3)**	**10.7% (N=6)**	**35.3% (N=12)**	
Contracted on back and right (N=26)	**MH I**	2	0	1	0	**3**
	MH II	3	0	4	0	**7**
	MH III	2	0	2	3	**7**
	SGE	3	0	3	1	**7**
	MH	0	1	0	0	**1**
	Post SGE	0	0	1	0	**1**
	TOTAL	**8.4% (N=10)**	**11.1% (N=1)**	**19.6% (N=11)**	**11.8% (N=4)**	

Table 55: correlation between date-age-sex-side in contracted on their back skeletons

Position	Date	Sub-adults	Juveniles	Males	Females	Total
Left side (N=64)	**MH I**	4	0	1	2	**7**
	MH II	4	4	3	6	**17**
	MH III	10	1	3	5	**19**
	SGE	15	0	2	2	**19**
	MH	0	0	0	2	**2**
	Post SGE	0	0	0	0	**0**
	TOTAL	**27.3% (N=33)**	**55.5% (N=5)**	**16% (N=9)**	**50% (N=17)**	
Right side (N=79)	**MH I**	5	0	3	0	**8**
	MH II	10	0	8	1	**19**
	MH III	11	0	6	3	**20**
	SGE	17	4	9	1	**31**
	MH	0	1?	0	0	**1?**
	Post SGE	0	0	1	0	**1**
	TOTAL	**36.1% (N=43)**	**44.4% (N=4)**	**48.2% (N=27)**	**14.7% (N=5)**	

Table 56: correlation between date-age-sex-side

Some interesting observations can be made about the 13 skeletons buried on their stomach.

Adults, both males and females, predominate and only two sub-adults were buried in prone position (Table 57). Nine (69.2%) of the skeletons buried on their stomach belong to double or multiple burials. Furthermore, seven out of the 16 (43.7%) double or multiple burials contain at least one individual lying on stomach. It seems thus that there was a correlation between double/multiple burials and prone position. Six of the 13 skeletons belong to the adjacent groups B and C, where also many of the double/multiple burials were found.

Finally, some individuals were buried lying on their stomach from the beginning until the end of the period under study. A higher frequency, however, is observed during the MH II and MH III periods.

		Sub-adults	**Juveniles**	**Males**	**Females**	**TOTAL No**	**Double or multiple burials**
Buried on stomach (N=13)	**MH I**	0	0	1	1	**2**	1
	MH II	2	0	1	2	**5**	3
	MH III	0	0	2	1	**3**	2
	MH III/ LH I	0	0	0	0	**0**	0
	LH I	0	0	1	0	**1**	1
	SGE	0	0	1	0	**1**	1
	MH	0	0	0	1	**1**	1
	Post SGE	0	0	0	0	**0**	0
	TOTAL %	**1.7% (N=2)**	**0**	**10.7% (N=6)**	**14.7% (N=5)**	**13**	**N=9 skeletons from 7 graves**

Table 57: correlation between date-age-sex and prone position

We see therefore, that some degree of gender differentiation has been observed, although clear dichotomies are absent. Overall, sub-adult and female body position seems more standardised. The vast majority of the deceased were buried on contracted position, while extended and prone positions were exceptional. Prone position is strongly correlated with double/multiple burials and therefore with groups B and C.

ii. arm position

As it has already been stated earlier, the description of the body position in archaeological contexts gives more emphasis on the position of the lower limbs and the back, while the position of the arms is in the better cases just mentioned and not further analysed. Here an attempt is made to analyse this parameter in the contracted skeletons (N=158). Our goal is to examine if arm position was standardised and further, if any pattern emerges regarding age and gender differentiation.

The skeletons were divided into two broad categories, those buried contracted on their back and those buried contracted on their side. The arm position of 85 skeletons (53.8% of the contracted skeletons) was recorded. In the remaining 73 contracted skeletons it was not possible to record the arm position.

The following categories were created (Figs. 55, 56):

A. Upper body on back

A1. Both arms folded over chest (4 skeletons)

A2. One arm across waist and the other on pelvis (7 skeletons)

A3. Both arms along body (2 skeletons)

A4. One arm across waist and the other on chest (7 skeletons)

A5. Both arms folded across waist (6 skeletons)

A6. One arm along body and the other on chest (1 skeleton)

A7. One arm along body and the other across waist (5 skeletons)

A8. One arm folded in front of face and the other folded on chest (2 skeletons)

A9. One arm folded in front of face and the other across waist (1 skeleton)

A10. One arm along body and the other on pelvis (4 skeletons)

A11. One arm folded over chest and the other on pelvis (1 skeleton)

A12. Both arms on pelvis (0)

B. Upper body on side

B1. Both arms extended in front of body (1 skeleton)

B2. Both arms bended toward knees (12 skeletons)

B3. The lower arm extended towards knees and the upper bended on ribs (5 skeletons)

B4. The lower arm bended towards knees and the upper bended on ribs (1 skeleton)

B5. Both arms bended in front of face/chest (13 skeletons)

B6. Right arm (lower or upper) in front of face and left arm bended on ribs (8 skeletons)

B7. Lower arm bended in front of body and upper arm along body (2 skeletons)

B8. Lower arm in front face and upper arm along body (0)

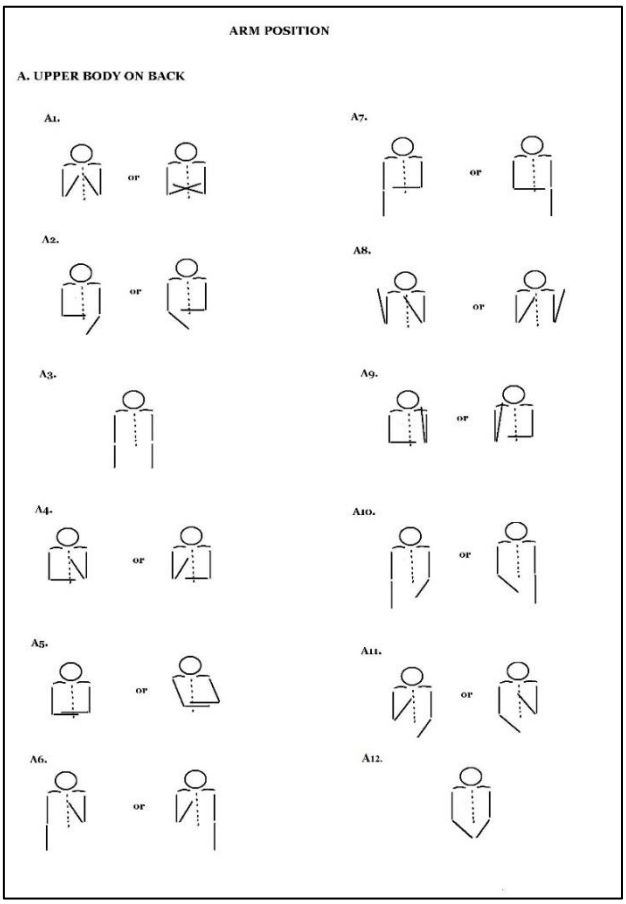

Fig. 55: arm position in contracted on back skeletons

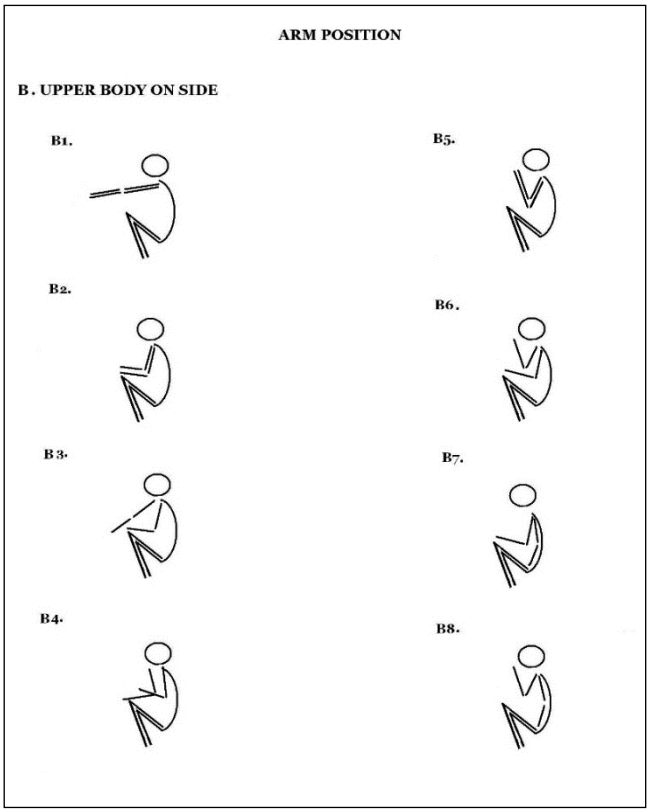

Fig. 56: arm position in contracted on side skeletons

The correlation between arm position, age categories and sex grades was studied for each category. Furthermore, the temporal pattern of each type of arm position was analysed (Appendix II). Although the number of cases per correlation (e.g. A1-MH III-MA) is too small to have any significance statistical value, some general trends were observed.

Age differentiation

Three clear cases of age differentiation on arm position were observed. Only adults and juveniles (7) were buried with one arm across waist and the other on pelvis (position A2) and the same holds true for individuals (6) buried with both arms folded across waist (position A5). On the contrary, only neonates (3) have been found with both arms placed along their body (position A3).

In four other cases a strong tendency for age differentiation were observed, although a couple of exceptions existed. Thus, mainly adults (6) and one sub-adult was buried with one arm across waist and the other on chest (position A4). Most of them were PA (5). Moreover, primary adults (7) and one sub-adult were buried with the right arm (lower or upper) in front of face and the left arm bended on ribs (position B6). On the other hand, mainly sub-adults (9) and three adults were found with both arms bended toward

the knees (position B2) and more sub-adults (3) than adults (1) were buried with both arms folded over chest.

Gender differentiation

Some hints of gender differentiation were sometimes observed. For instance, only women (5) were buried with one arm along body and the other across waist or with one arm along body and the other on pelvis (positions A7, A10). On the other hand, mainly men (8) and one woman were buried with both arms bended in front of face/chest (position B5).

Change through time

Concerning chronological distribution of the different arm positions, no clear pattern or trend emerges.

Based on these observations we can suggest that age was more definitive criterion for the arms position than biological sex. Most of the distinctions were between sub-adult and adult individuals. Furthermore, inside these two broad groups (sub-adults/ adults) individuals tend to cluster around particular age grades (e.g. the adults buried in A4 position were primarily PA). However, sometimes gender seems to have been also of some importance. Nevertheless, it should be emphasized once more that the numbers are small and the patterns are not strict.

The usual absence of clear dichotomies between age groups and sex grades may suggests the absence of strict rules concerning arm position or that an elaborate code existed that we cannot translate. However, the second possibility is less likely, because of the general absence of strict and rigid rules in MH mortuary patterning.

iii. body orientation

Body orientation, or more precisely the direction the head was placed was recorded for 192 (85%) skeletons. For the remaining 34 (15%) skeletons it was not possible to ascertain body orientation. Although most of the graves were aligned to close by house walls, our goal here is to examine possible differentiation in the placement of the corpse inside the grave.

Generally, the head was usually oriented to the cardinal points, less often to NE and to SW and occasionally to NW and SE (Table 58). The skeletons buried with head to N or to S were more often (43 skeletons) facing W, towards the mountain, than E (22

skeletons), towards the sea. The skeletons buried with head to E or to W were facing in almost equal numbers N (31 skeletons) and S (28 skeletons).

Age and gender differentiation was not apparent and clear patterns are totally missing (Charts 25, 26, 27, Appendix III). Some change through time has been observed.

Age differentiation

Cases of clear age differences are missing and only some weak tendencies have been observed. For instance, more sub-adults (26) than adults (12) were buried with their heads towards N, while the percentage of adults (20%) buried with their heads towards W is scientifically higher than sub-adults (13.4%).

Gender differentiation

A couple of instances of gender differentiations have been noted. For example, more males (9; 17.9%) than females (2; 5.8%) were buried with their head towards N, while most of the females in the cemetery (10 out of 36) were buried with their head towards S.

Change through time

During the first two phases of the MH period the head of the deceased was usually orientated to the S or the W. From the MH III period onwards the head was more frequently oriented to the N and to a lesser extend to the S or to the E.

Once more, no clear distinctions are observed between age groups or sex grades. Some weak tendencies of differentiation are noticed but dichotomies are missing. Through time, a change was noted in the preference towards which the head was usually placed.

	N-S	NE-SW	NW-SE	E-W	W-E	S-N	SW-NE	SE-NW	TOTAL	Unknown
EH/MH	0	0	0	0	0	0	1	0	**1**	1
MH I	2 10%	1 5%	1 5%	3 15%	5 25%	7 35%	1 5%	0 0%	**20**	14
MH II	4 8.2%	2 4.1%	3 6.1%	5 10.2%	13 27%	10 20.4%	6 12.2%	5 10.2%	**48**	8
MH III	14 30.4%	4 8.7%	1 2.2%	9 19.6%	7 14.9%	10 21.7%	1 2.2%	1 2.2%	**47**	4
MH III/ LH I	7 28%	3 12%	2 8%	6 24%	1 4%	6 24%	0 0%	0 0%	**25**	2
LH I	9 36%	0 0%	0 0%	5 20%	5 20%	5 20%	0 0%	1 4%	**25**	2
SGE	1 16.7%	0 0%	0 0%	6 37.5%	3 18.7%	3 18.7%	3 18.7%	0 0%	**16**	1
MH	0 0%	2 28.6%	0 0%	1 14.4%	0 0%	1 14.4%	3 42.8%	0 0%	**7**	2
Post SGE	1 33.3%	1 33.3%	0 0%	0 0%	1 33.3%	0 0%	0 0%	0 0%	**3**	0
TOTAL	**38**	**13**	**7**	**35**	**35**	**42**	**15**	**7**	**192**	**34**

Table 58: body orientation through time

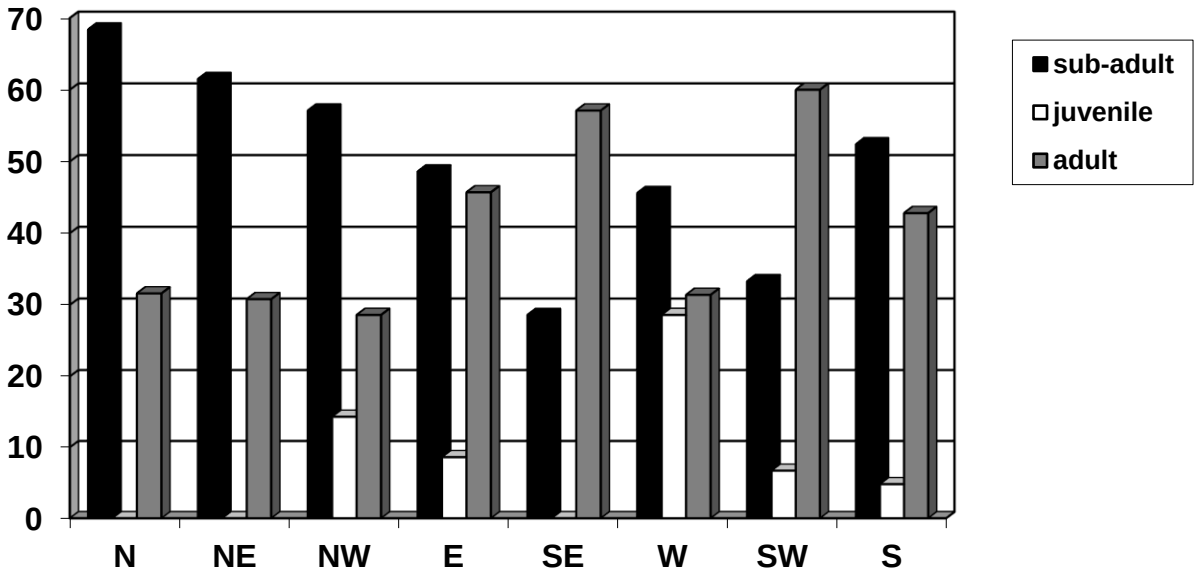

Chart 25: age composition of each orientation

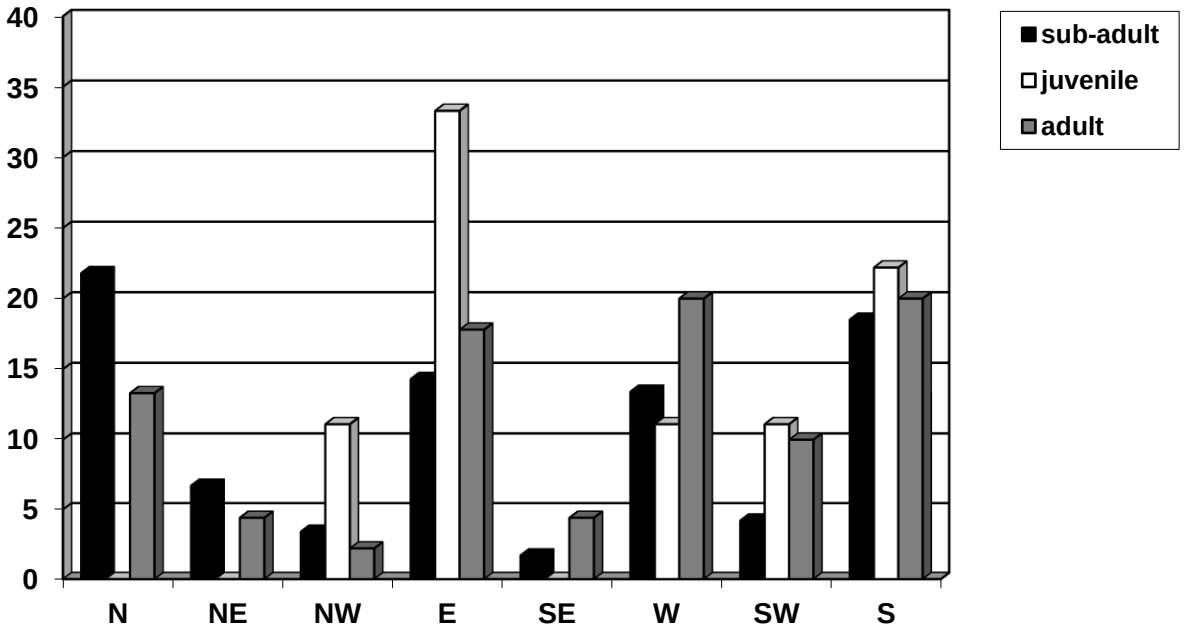

Chart 26: percentage of sub-adults, juveniles and adults in each orientation

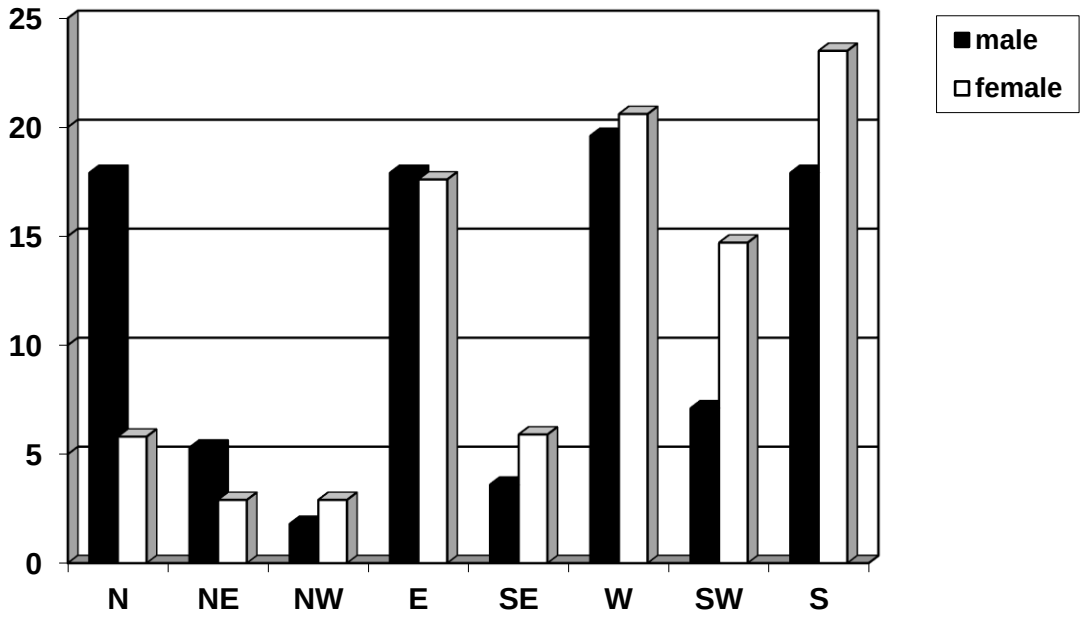

Chart 27: percentage of the two sexes in each orientation

1.4 LERNA: THE FINDS

Having examined all the available information on the cemetery, the graves and the skeletons

let me finally turn to the objects deposited in the burial.

1.4.1 Introduction

202 objects have been found in relation to 92 graves (41.2%) at Lerna.[62] These finds are divided here into two broad categories, pottery (68 vessels) and non-pottery (134 objects) finds. However, not all of them are treated as real offerings in the publications. Many of them (15 pottery and 83 non-pottery finds) are treated as associated finds, as objects that were either found at the vicinity of a grave and it could not be decided whether they were related with it or not, or they were found in the grave but it was not clear whether they were intentionally deposited there or not.

Interestingly, however, it seems that certain object categories were not considered as proper burial offerings and they were treated as associated finds. For example, all the stone tools and simple weapons, many bone pins and some of the terracotta whorls are treated as associated finds.

Here, although the distinction is mentioned, both the objects that considered as offerings and those referred as associated finds will be treated in the same way. That is not to say that all the objects were intentionally deposited in the graves. Rather, an attempt is made not to exclude any object category a priori and to examine whether patterns emerge concerning the distribution of both offerings and associated finds.

In addition to various objects, organic remains have been found in 36 graves.[63] These finds are divided into animal bones, shells and charred grains. When possible, the species represented are mentioned.

Correlations with age categories, sex grades, grave types, as well as between the finds are examined for each find category. For the ceramic objects, breakage patterns and use categories -i.e. eating-drinking, pouring, storing- are taken into account. Furthermore, the spatial distribution of the objects and, in particular, their distribution in the different burial groups is analysed. Finally, emphasis is also given to changes through time.

[62] Finds from the shafts of the two shaft graves are not included here, as they have not been published as yet.

[63] Animal bones and shells that were found during the re-examination of the skeletal material by S. Triantaphyllou and studied by D. Reese are not included here.

Throughout the analysis a number of questions are addressed: were status differences expressed through the quantity, quality and the variability of the grave finds and their correlation with elaborate grave types? Were age and gender differences expressed? Did differentiation exist between the grave groups in regard of the kind and quantity of the finds? And, was there change through time in the deposition of grave finds?

1.4.2 Pottery

68 vessels have been found in 42 graves (19.1% of the graves). In 27 of them a single vessel was deposited. In the remaining 15 graves more than one vessel was found.

During the **EH III** and the transitional EH III/MH I period vessels were not deposited in burials.[64]

Three vessels date from the **MH I** period (Chart 28). During this period, pots were deposited single in single burials. These burials belonged only to sub-adult individuals (Table 59). More specifically, vessels were found in two neonate and one infant burial (Chart 30).

In total, 11% of the MH I graves had pottery (Chart 29). It should be stressed however that only the cup (L978) found in the infant (2-3y) grave BD27 was securely deposited as an offering (Fig. 57). The broken jug (L1214) associated with the neonate (new born) grave DE33 was found in the shaft above the grave, while the broken jug (L1235) found inside the foetus/neonate jar burial DE68 was used to cover the mouth of the jar.

Sub-adults	3		
Juveniles	0	**Male:** 0	**Female:** 0
Adults	0	**Male:** 0	**Female:** 0

Table 59: pottery distribution in age and sex categories during the MH I period

[64] Five small pots that were found in the general vicinity of the EH III pit grave BB3, were probably not associated with the grave (Blackburn 1971, 29-30).

Fig. 57: Cup L978 from grave BD27 (photo by the author).

During the **MH II** period 19 vessels were placed in 12 graves (Chart 28). In three of these graves more than one vessel was deposited. This was the first time that more than one vessel was deposited in a burial. Two single burials had more than one vessel. It should be mentioned however, that one of the two vessels from grave C-F (L48) is an associated find as it was found outside the grave. It is maybe significant that both single burials belonged to juvenile (C-F; female) and adult (J4B; male) individuals (Fig. 58, 59). The third burial containing more than one vessel was a multiple burial (BE30).

Fig. 58: Vessels L913 and L914 from grave J4B (photo by the author).

Fig. 59: Vessels L1052 and L1054 from grave J4B (photo by the author).

In the remaining single burials containing one vessel both juvenile-adults and sub-adults were buried (Chart 30). Generally, in contrast with the MH I period, during the MH II period vessels were more frequently deposited in juvenile and/or adult burials than in sub-adult burials (Table 60). Furthermore, although more vessels were found in adult female burials (Chart 31) an adult male burial (J4B) was the only single burial with many vessels (4).

The percentage of graves with pottery increased significantly in comparison to the preceding period (Chart 29). In total, 21.8 % of the MH II graves had pottery. It should be noted, however, that three of the vessels were treated as associated finds (L100-A2,3,4; L392-BA1; L48-C-F).

Sub-adults	2		
Juveniles	2	**Male:** 0	**Female:** 2
Adults	4	**Male:** 2	**Female:** 3

Table 60: pottery distribution in age and sex categories during the MH II period

Nine vessels came from eight **MH III** graves (Chart 28), all of them single burials. Two of the vessels, however, are treated as associated finds.[65] Once, two cups were placed together in a neonate (2-6m) burial (BD6). This was the first time that more than one vessel was deposited in a sub-adult burial (Fig. 60). In the remaining graves containing pottery adults and sub-adults were buried (Chart 30). In general, almost equal number of adult and sub-adult burials received pottery during the MH III period (Table 61).[66]

[65] The cup L1667 (grave B20) was found in the fill above the grave and the lid L1120 (grave DE58) was found in the cist while cleaning the grave.
[66] A skeleton was not found in grave DE58.

It is interesting that the percentage of graves with pottery decreased in comparison with the MH II period (Chart 29). 17% of the MH III graves had pottery.

Fig. 60: Cups L929 and L981 from neonate burial BD6 (photo by the author).

Sub-adults	4		
Juveniles	0	**Male:** 0	**Female:** 0
Adults	3	**Male:** 2	**Female:** 1

Table 61: pottery distribution in age and sex categories during the MH III period

During the transitional **MH III/LH I** period and until the **LH I** period (SGE), more vessels were deposited in fewer graves. In total, 35 vessels were found in 18 graves (Chart 28). The vessels were primarily found in single burials. Only once a vessel was deposited in a multiple burial (DC1). One vessel was also deposited in seven single burials[67], six of which were sub-adults and one was adult. It is clear that single vessels were mainly found in sub-adult burials. Two or more vessels on the other hand, were found in four juvenile and adult burials and in five sub-adult burials.[68] It seems thus that during these late phases pottery was primarily deposited in sub-adult burials but the adults were usually given more than one vessel (Table 62, Chart 30). It should be

[67] One of the vessels deposited with an infant (L1111-DE22) is treated as associated find, as it was found broken in the shaft above the grave.
[68] Both vessels from the adult burial B2 (L243, L430) are associate finds. The same holds true for one of the vessels (inventoried cup) found in the neonate burial BD4.

stressed however, that the biggest amount of pottery (6 vessels) was deposited in an infant burial (DC 2) (Fig. 61, 62, 63).

Fig. 61: Vessels L921 and L922 from infant burial DC2 (photo by the author).

Fig. 62: Vessels L923 and L925 from infant burial DC2 (photo by the author).

Fig. 63: Vessels L926 and L927 from infant burial DC2 (photo by the author).

After the decrease during the MH III period, the percentage of graves with pottery increased again. In total, 23.4% of the SGE graves contained pottery (Chart 29).

Sub-adults	10		
Juveniles	1	**Male:** -	**Female:** -
Adults	4	**Male:** 3	**Female:** 1

Table 62: pottery distribution in age and sex categories during the SGE

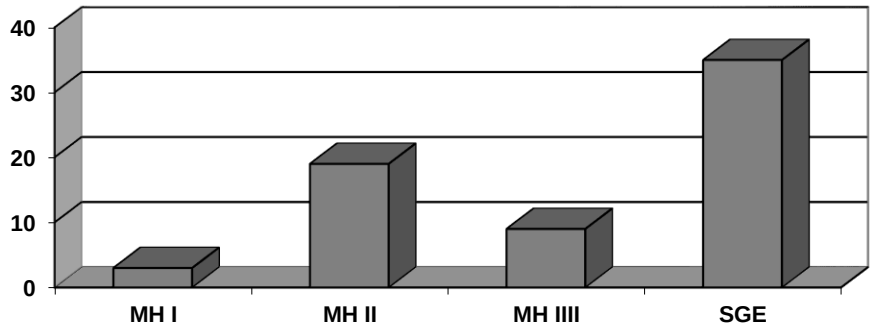

Chart 28: distribution of vessels (total 68) in each period

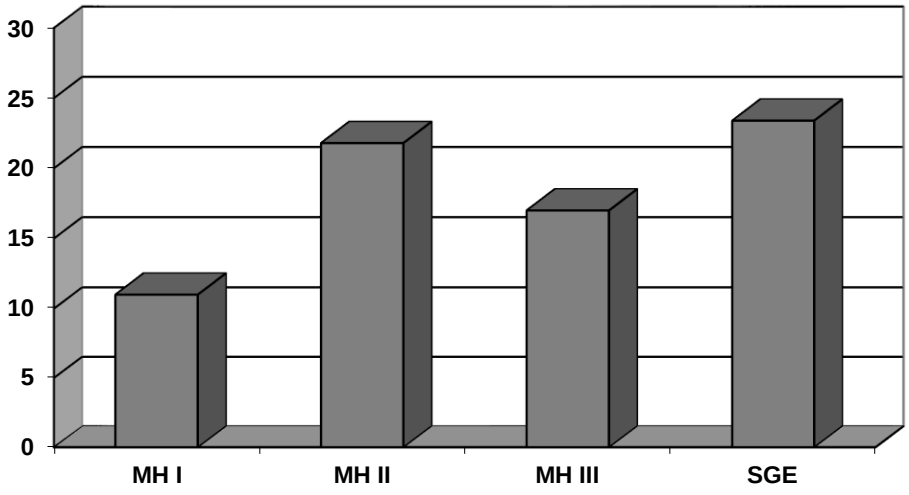

Chart 29: percentage of graves with pottery (total 42) in each period

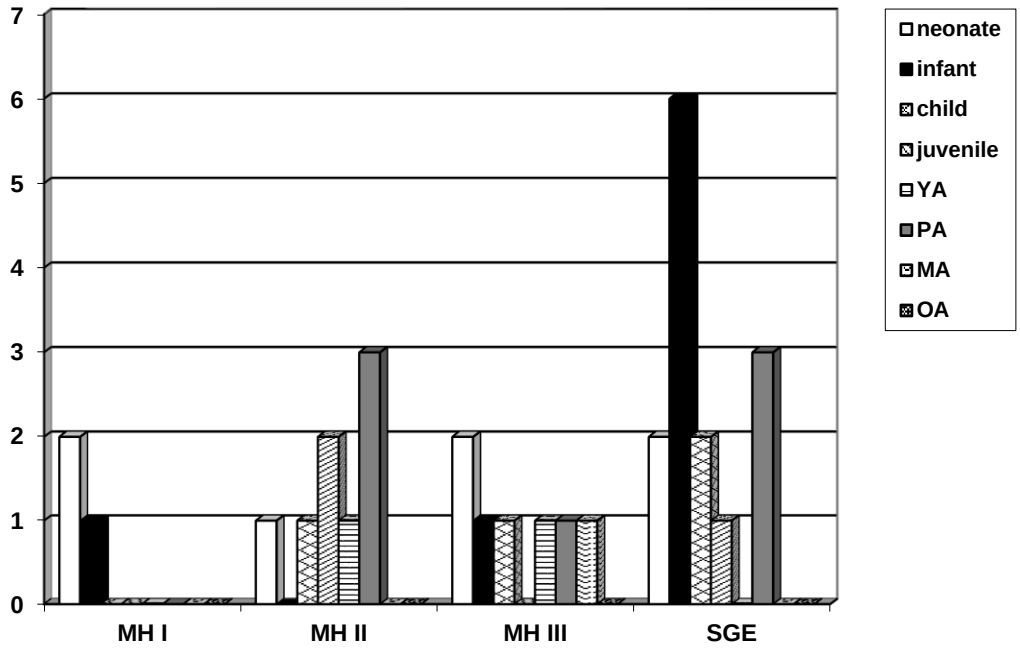

Chart 30: distribution of pottery in age categories in each period

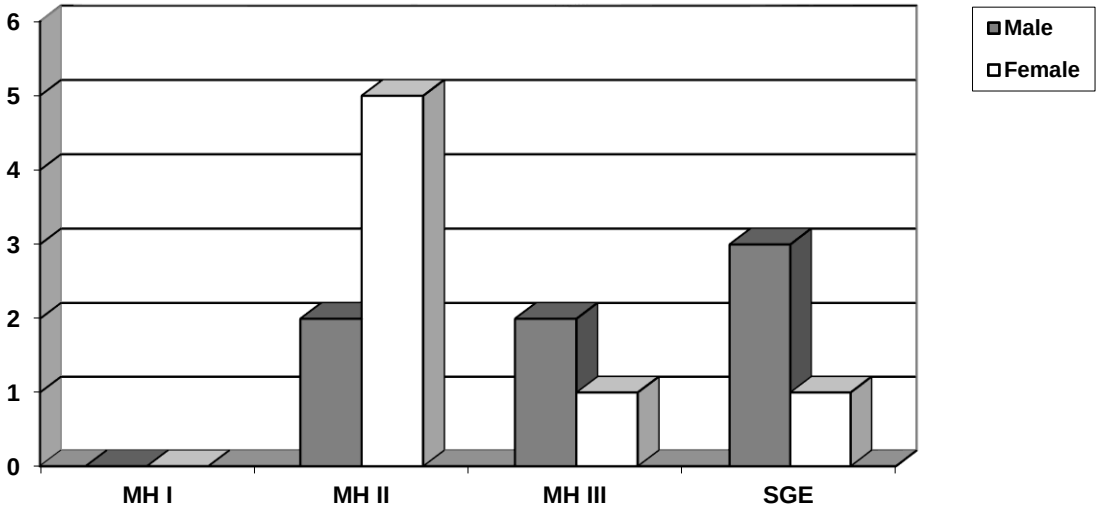

Chart 31: distribution of pottery in sex categories in each period

If we examine **gender** composition of single burials with pottery, regardless their dating, we see that seven belonged to male -13% of the male- and seven to female -21.2% of the female- individuals. Although an equal number of male and female graves contained pottery the percentage of female graves is higher than the percentage of male graves. Furthermore, a change has been observed between the early phases, when more

female than male burials contained pottery, and the late phases, when more male burials contained pottery (Chart 31).

If we turn to **age**, 18 sub-adults -15.5% of the sub-adults-, three juvenile -50% of the juveniles- and nine adult -10.3% of the adult- burials had pottery (Chart 32). Thus, pottery was more often found in sub-adult graves. Moreover, pottery was never found with OA individuals (5). Finally, the only vessel found in MA burial was found in the fill above the grave and is treated as an associated find. It seems thus that pottery was not deposited with older adults.

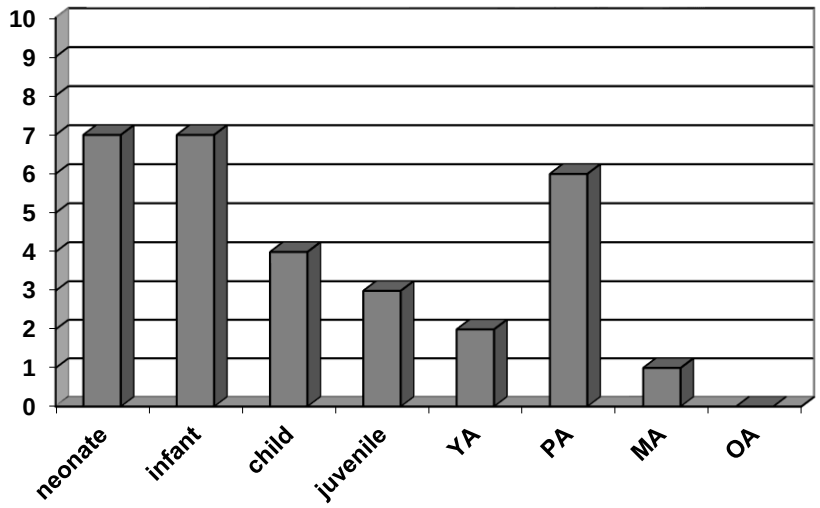

Chart 32: distribution of pottery in age categories

From the 42 graves which contained pottery, 66.7% were cists of different types**,** 23.8% were pits, 7.1% were jar burials while once (2.4%) a vessel was associated with stray bones (Chart 33). It becomes instantly obvious that most of the vessels were found in cist graves.

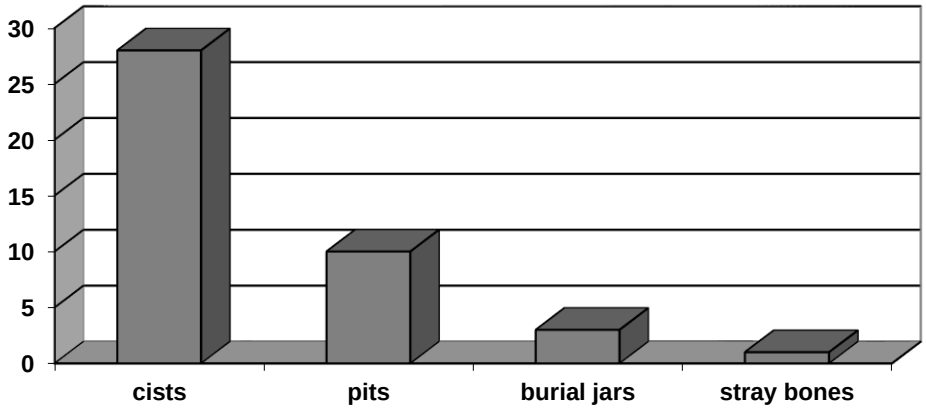

Chart 33: distribution of graves with pottery (total 42) into grave types

If we now examine the percentage of each grave type containing pottery (Chart 34), we can observe that burial jars were more likely to contain pottery, followed by cist graves.

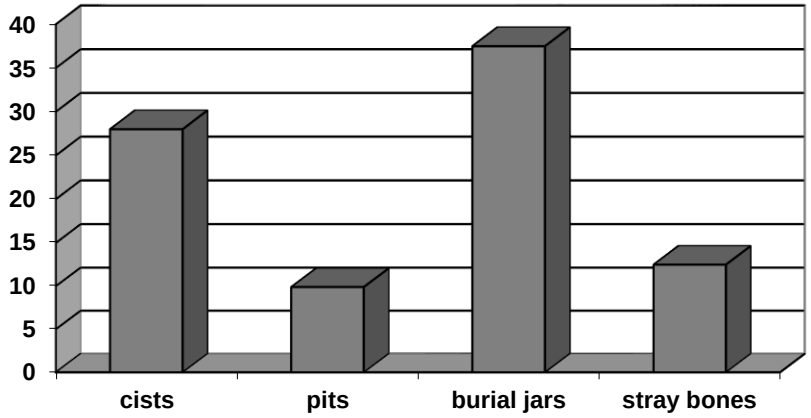

Chart 34: percentage of pottery in each grave type

Finally, the distribution of the 42 graves with pottery into the seven **burial groups** reveals that most of the graves with pottery were found in grave group B (Chart 35).

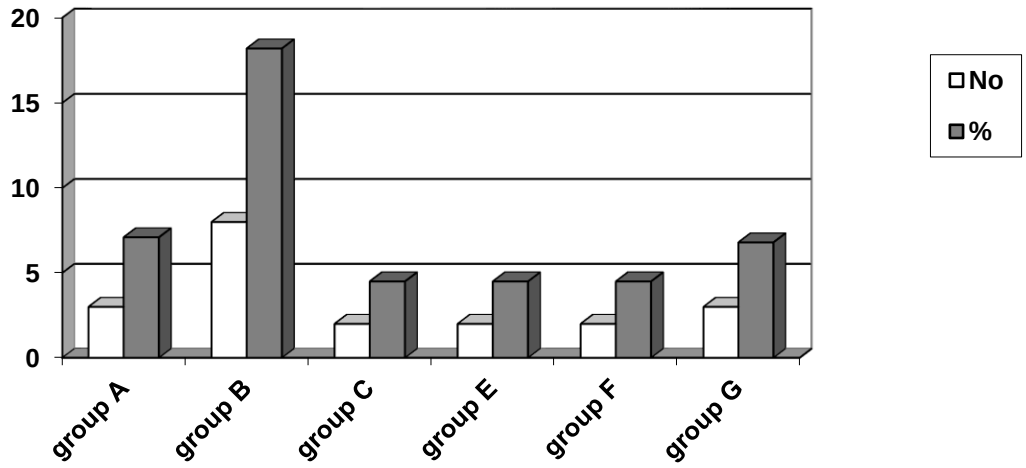

Chart 35: distribution and percentage of graves with pottery (No 42) in the grave groups

In total, the higher percentage of graves containing pottery was observed in groups A and B followed by group C (Chart 36). All three groups are situated close together in the central excavation area. It becomes thus obvious that significant differences in the percentage of pottery existed between the burial groups.

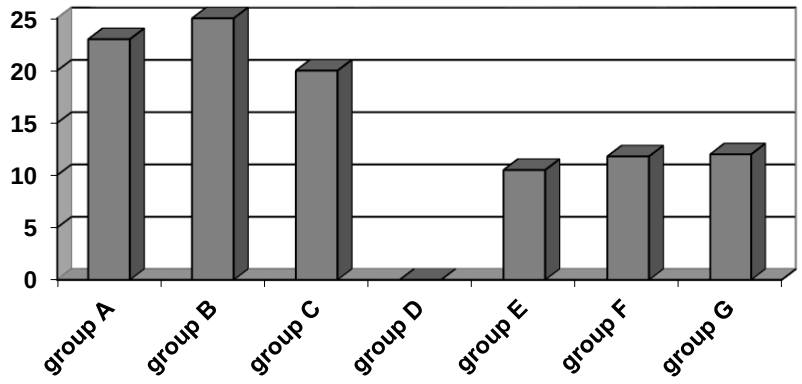

Chart 36: percentage of graves with pottery in each grave group

a. Shapes

Let me now examine what kind of vessels were deposited in the graves.

i. Cups: 29 cups -42.6% of the vessels- have been found in 22 graves (Chart 47). In seven of them, two cups were found together. Cups were the most common vessels found in burials.

The most common type of cup was the coarse one-handled cup (13 cups), followed by kantharoi (8 cups). Coarse cups were found throughout the period under study, while kantharoi were found from the MH II until the transitional MH III/LH I period (Charts 37, 38). These were usually MP (4) and AM (3) kantharoi, while once an YM kantharos was found.

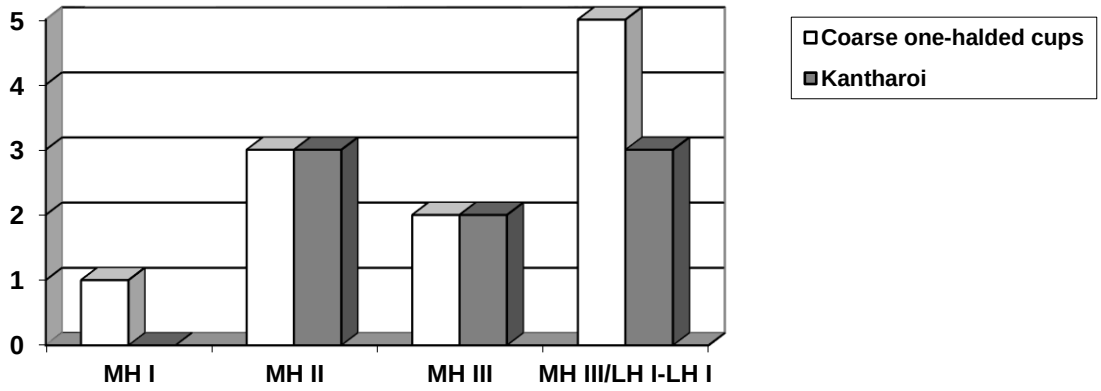

Chart 37: distribution of coarse cups and kantharoi in each period

Only one coarse cup (L978) was found in a MH I grave (BD27). Eight cups were found in six MH II graves, one of which was a multiple burial. Five cups were found in four MH III graves, all with single burials. Finally, 14 cups were found in 11 SGE graves again all single burials (Chart 38). Therefore, their chronological distribution has the similar pattern revealed for pottery in general.

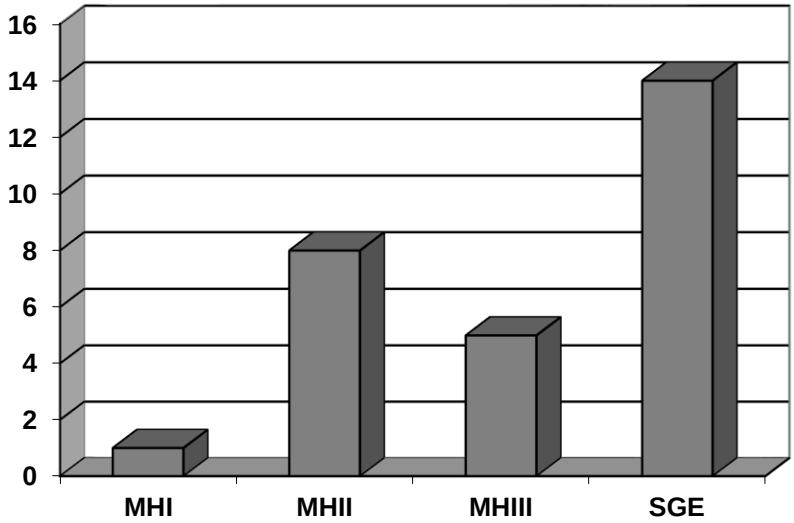

Chart 38: distribution of cups in each period.

Cups were deposited in sub-adult and in juvenile and adult burials. Both males and females received cups (Table 63). Their distribution in different age groups follows the same pattern revealed for pottery in general (Chart 39).

Sub-adults	10		
Juveniles	2	**Male:** -	**Female:** 1
Adults	7	**Male:** 4	**Female:** 3

Table 63: distribution of cups in age and sex categories

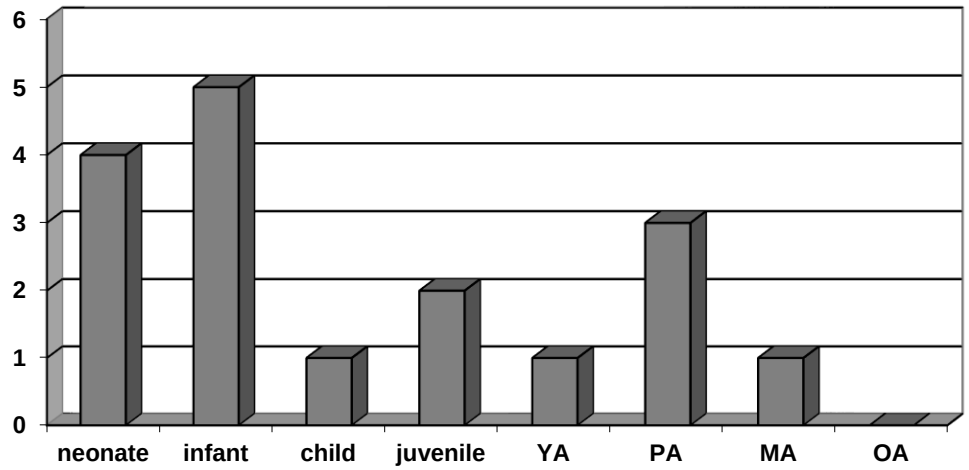

Chart 39: distribution of cups in age categories

Pottery sets

Cups were combined with jugs in six graves[69] -27.3% of the graves with cups-, forming pottery sets. This practise sets in at Lerna during the transitional MH III/LH I period. The occurrence of both vessels in the MH II grave J4B should be considered rather exceptional, as this grave ('the warrior burial') exhibits other unique features as well (e.g. extended body position, bronze knife, import).

Most of the times, kantharoi (5) were combined with jugs. No other obvious correlation between cups and any other find was noticed.

ii. Jugs: 18 jugs -26.5% of the vessels- have been found in 15 graves (Chart 47). Twice, more than one jug was found in the same grave (BC3, BD19). Jugs were the second most common vessel type deposited in burials.

[69] BC1, BC3, BC4, D5, DC2.

Nine of the jugs were of the simple type, eight were beak-spouted jugs and one was a strainer jug (Chart 40). Simple type jugs were first appeared during the MH II period and they were in use throughout the period under study. It should be noted, however, that no jugs date from the MH III period. Most of the simple jugs were MP (4 jugs), two were dark burnished, one GM and one had a white-on-red decoration. Beak-spouted jugs were used sporadically at the beginning of the period under study and they became more frequent towards the end of the period, again with the exception of MH III period. Most of the beak-spouted jars were also MP (4 jugs); two were plain, one was YM and one had a light-on-dark decoration. The strainer jug dates from the transitional MH III/LH I period.

All jugs were made of fine-medium fabrics.

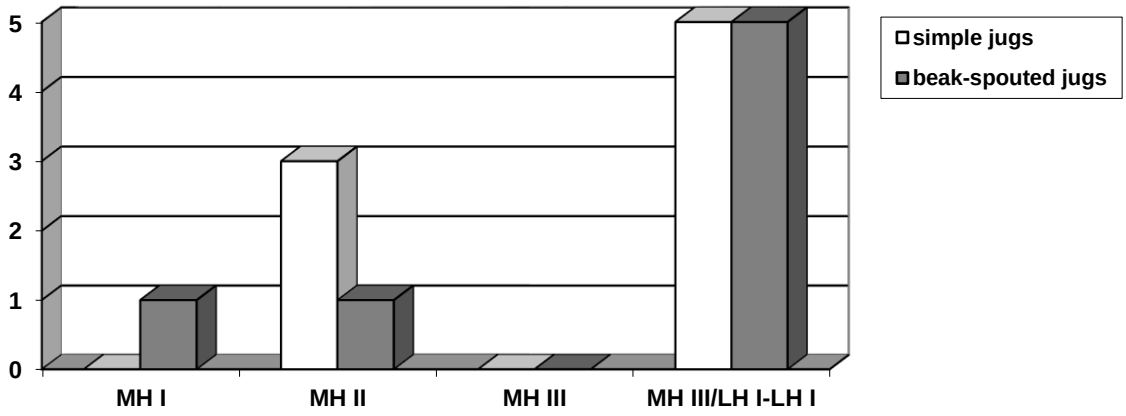

Chart 40: distribution of simple and beak-spouted jugs in each period

Only one jug (L1214-associated) was found in a MH I grave (DE33). Four jugs were found in four MH II graves, all them with single burials. Finally, 12 jugs were found in nine SGE graves. One of them was a multiple adult burial (DC1) (Chart 41).

It becomes instantly obvious that there is a clear increase in the number of jugs used as offerings during the late phases of the period under study.

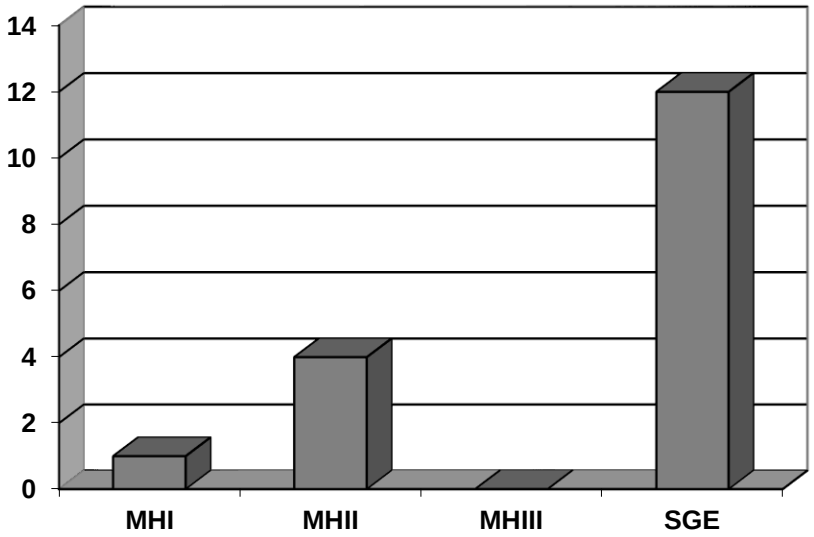

Chart 41: distribution of jugs in each period.

Both sub-adults and juvenile-adults received jugs (Table 64). Interestingly however, from the sub-adult category children received more jugs[70], while neonates and infants received more cups. From the adult category, jugs have been exclusively found with PA (Chart 42).

Considering gender, jugs were deposited with males and females without clear differentiation (Table 64).

Sub-adults	7		
Juveniles	2	**Male:** -	**Female:** 1
Adults	4	**Male:** 3	**Female:** 1

Table 64: distribution of jugs in age and sex categories

[70] The jug (L1214) found with the neonate burial (DE33) is treated as associated find.

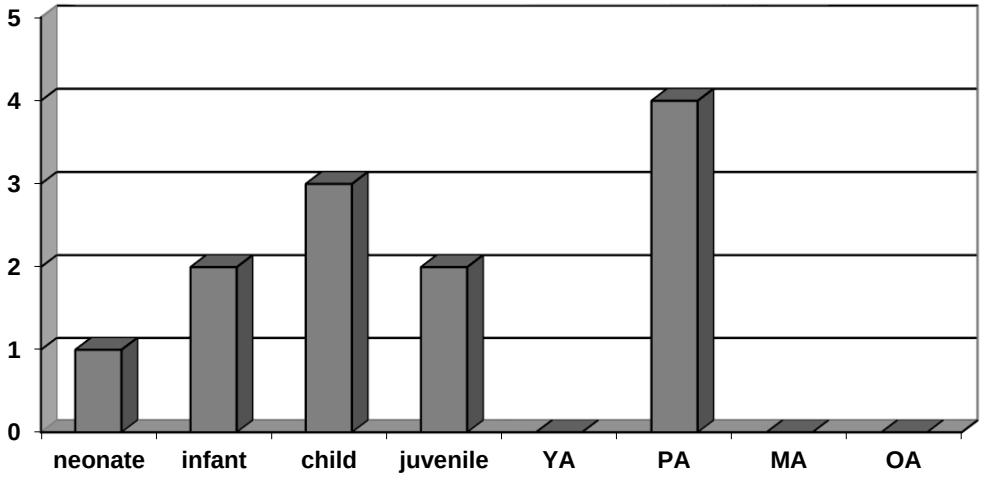

Chart 42: distribution of jugs in age categories

Pottery sets

As mentioned above, jugs were combined with cups in six graves -33.3% of the graves with jugs-, especially from the MH III/LH I period onwards. Beak-spouted jugs were quite more often combined with cups (5 jugs) than simple jugs (3 jugs).

No other obvious correlation between jugs and any other find was noticed.

iii. Jars: Eleven jars -16.2% of the vessels- were found in ten graves (Chart 47). Only once two jars were found in the same grave (DC2).

Two of the jars were spouted. Generally, there is great variety both in the shapes and wares of the jars and in their size.

Only one jar was found in a MH I grave. The jar (L1235) was used as cover of a burial pithos. Five jars were found in five MH II graves, two of which with multiple burials. One jar came from a MH III single burial. Finally, four jars were found in three SGE single infant burials. Most of the jars were thus dated from the MH II period (Chart 43). Actually, this is the first time that a jar was deposited as a real offering, as the use of the MH I jar was to cover a burial pithos. Different types of jars were in use as burial offerings until the LH I period.

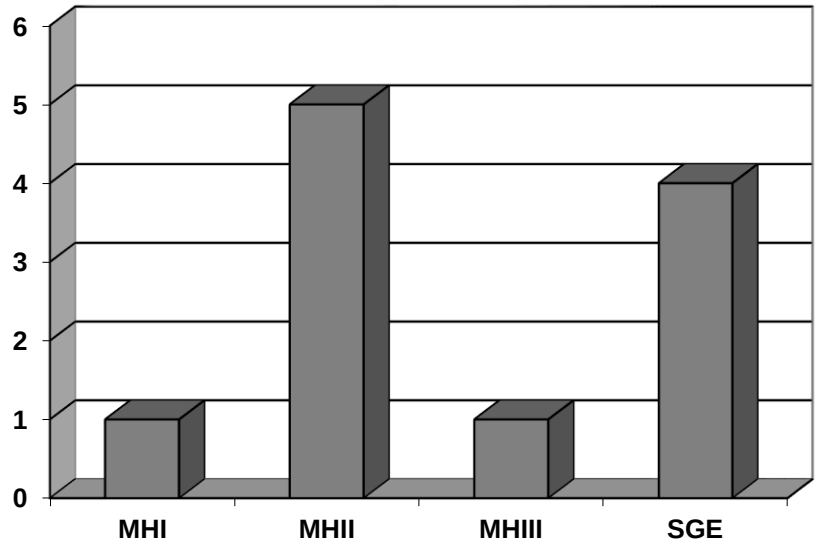

Chart 43: distribution of jars in each period.

As we can see on Table 65, jars were quite more often associated with sub-adult than with adult burials. Jars have not been found in children and juvenile burials (Chart 44).

Sub-adults	5		
Juveniles	0	**Male:** 0	**Female:** 0
Adults	3	**Male:** 2	**Female:** 1

Table 65: distribution of jars in age and sex categories

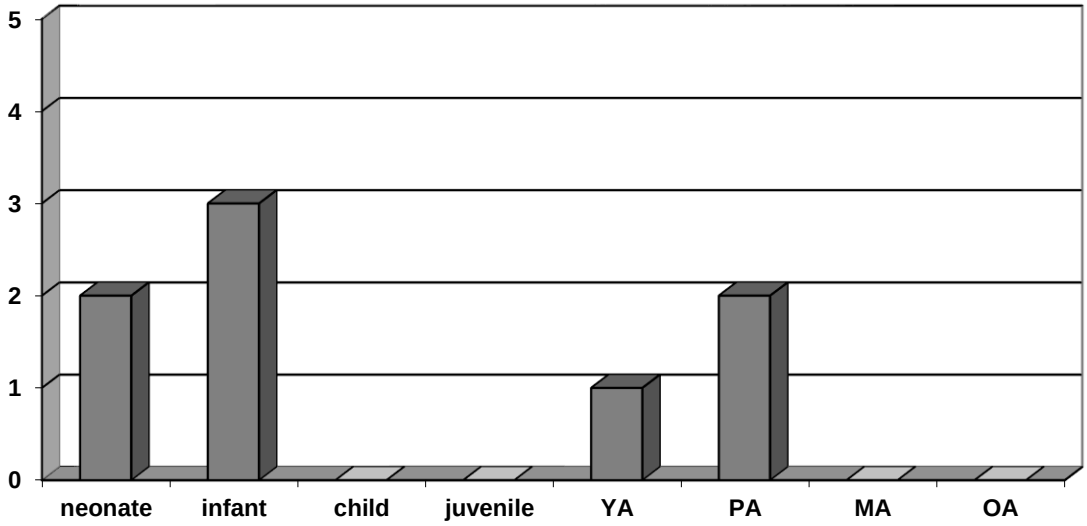

Chart 44: distribution of jars in age categories

Pottery sets

Jars were found together with cups in three graves[71] -27.3% of the graves with jars. These graves date from the MH II period onwards. Jars and cups, however, were not the only finds in these graves. Twice, jar, cups and jug were found together. No other obvious correlation between jars and any other find was observed.

iv. Bowls: Five bowls -7.3% of the vessels- were found in five graves (Chart 47). Most of the bowls (4) were two-handled. One bowl was handless. Always a single bowl was found in the graves.

Bowls were first deposited in graves during the MH II period and they were associated sporadically with graves until the end of the period under study. In particular, one bowl was found in a MH II single burial[72]; two bowls were found in two MH III single burials and finally, two bowls were found in two SGE single burials (Chart 45).

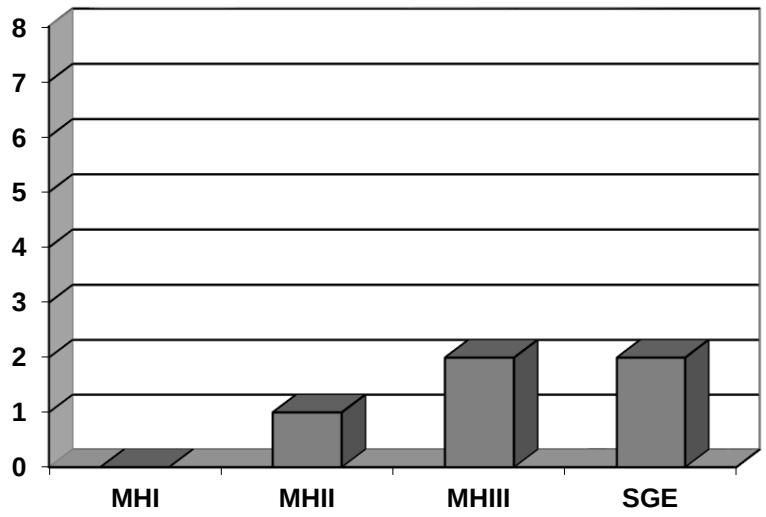

Chart 45: distribution of bowls in each period.

Both sub-adults and juvenile-adults, males and females received bowls (Table 66). Although the number of bowls is small, it seems that not all age categories received them. Most of them were found in infant burials (Chart 46).

[71] BE30, DC2, J4B.
[72] Grave C-F. The dating of this grave has not been revised by Carol Zerner.

Sub-adults	3		
Juveniles	1	**Male:** 0	**Female:** 1
Adults	1	**Male:** 1	**Female:** 0

Table 66: distribution of jars in age and sex categories

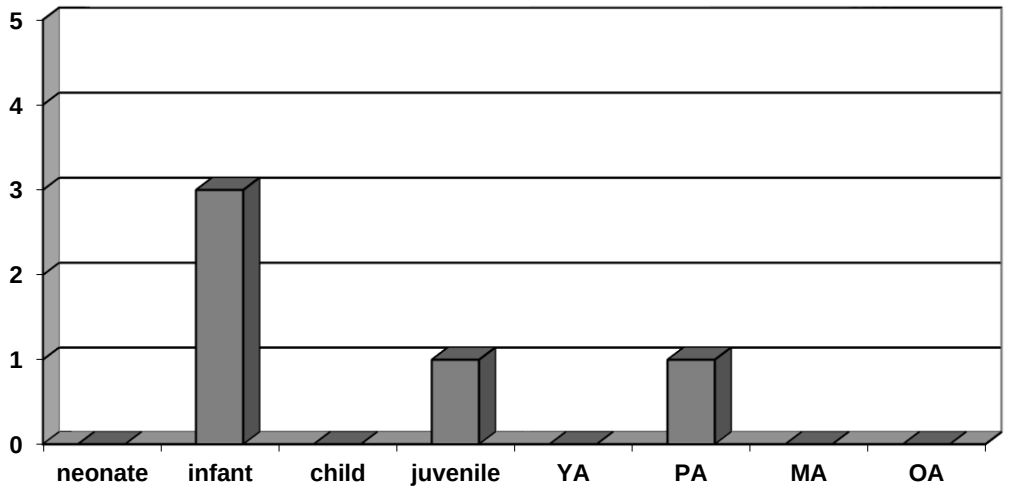

Chart 46: distribution of jars in age categories

Pottery sets

Twice, bowls were found in the same graves with cups and terracotta whorls.[73] One of the two graves dates from the MH III/LH I period, while the dating of the second, which is currently dated to MH II period, may change as it has not been revised by Carol Zerner yet.

v. Unique shapes

Only a couple of vessels (Chart 47) do not fall into one of the shape categories already described above. Most of them date from the LH I period. During this late period the rather standardised pottery assemblage used in burials became more variable, living more room for differentiation.

- A pyxis, or rather a pyxis-like vessel (L1066), was found in a MH II (BE30) multiple burial. In the same burial one jar, two cups, two pestles (?), a terracotta whorl, a bone pin, a bone awl and a pierced disc were found.
- A lid (L1120) was found in a MH III (DE58) empty grave.

[73] BE6, C-F.

- A flask (L1132) was found in a neonate grave (BD4) dating generally from the SGE. The flask was combined with a cup.
- A feeding bottle (L924) was found in a LH I grave (DC4), where the skeleton was not preserved. Together with the feeding bottle many beads and some obsidian chips were found.
- A goblet (L926) was found in a LH I (DC2) infant grave. The goblet was combined with two cups, two jars and one jug. One bead and a piece of obsidian were also found in the grave.

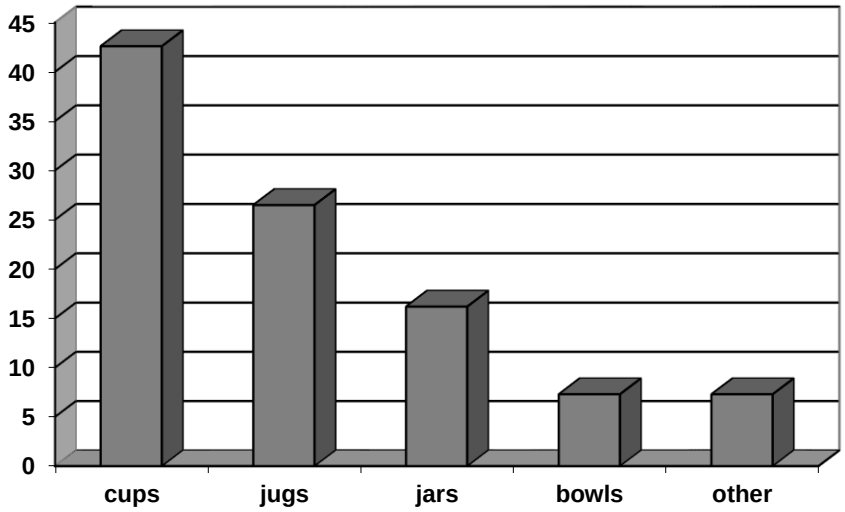

Chart 47: percentage of different pottery shapes

We see therefore that cups and jugs were the most common pottery vessels chosen for the burials. The use of jugs increases significantly during the SGE. Pottery sets composed by the two shapes were used from the transitional MH III/LH I period. Overall, the range of pottery types used in burials is narrow and only during the LH I period became more variable. Gender differences in the pottery shapes used are not apparent, while some instances of age differentiation have been observed. However, once more, clear divisions are absent.

b. Use categories

The vessels found in the graves fall into three broad categories concerning their use: eating and drinking; pouring; storing. The study of the use categories aims to clarify

which functions of the vessels were considered appropriate for a burial and to explore if different functions were chosen for different sections of the population.

i. eating and drinking

Most of the cups, all bowls, the feeding bottle and the goblet fall into this use category, which is the most common among the vases (Chart 56). In total, 35 vessels -51.5% of the vessels- had been used or could have been used for the consumption of food and liquids.

Although most of the eating/drinking vessels date from the end of the period under study, their higher frequency is observed during the MH III period (Charts 48, 49, 57, 58).

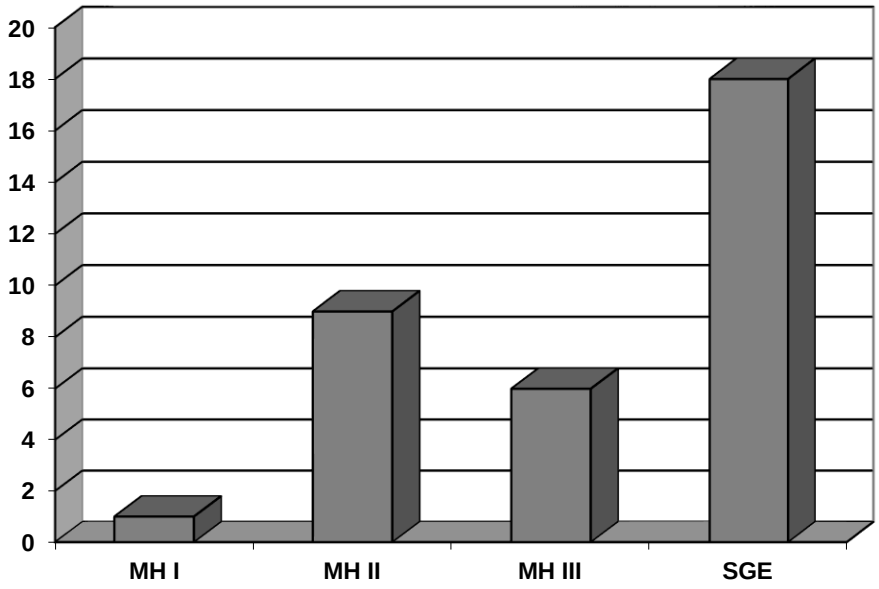

Chart 48: distribution of eating/ drinking vessels in each period

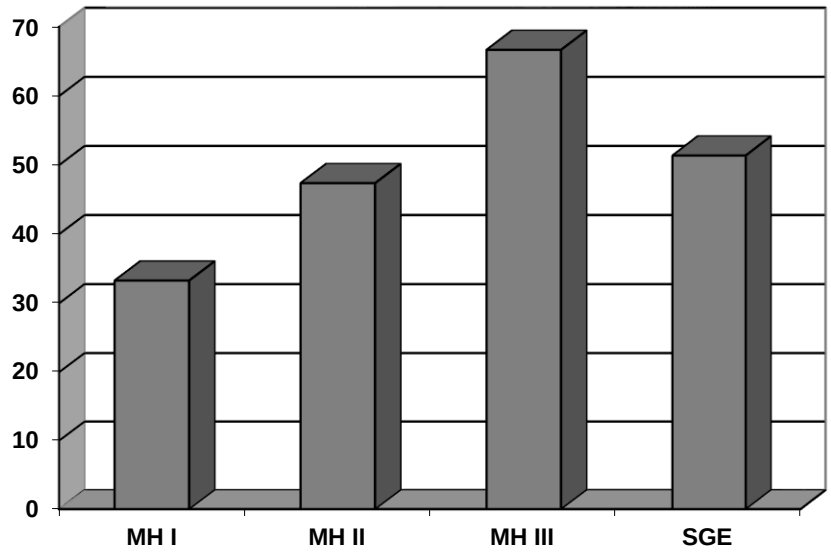

Chart 49: percentage of eating/ drinking vessels in each period (out of all vessels of the period).

Eating and/or drinking vessels were found in sub-adult and juvenile-adult burials (Table 67). Concerning the age categories, they were more often found in infant and neonate graves (Chart 50), as, in absolute terms, most the cups were deposited in those graves. This pattern follows the general pattern revealed from pottery. They were quite more often associated with male than with female burials (Table 67).

Sub-adults	13		
Juveniles	2	**Male:** -	**Female:** 1
Adults	8	**Male:** 5	**Female:** 2

Table 67: distribution of eating/drinking vessels in age and sex categories

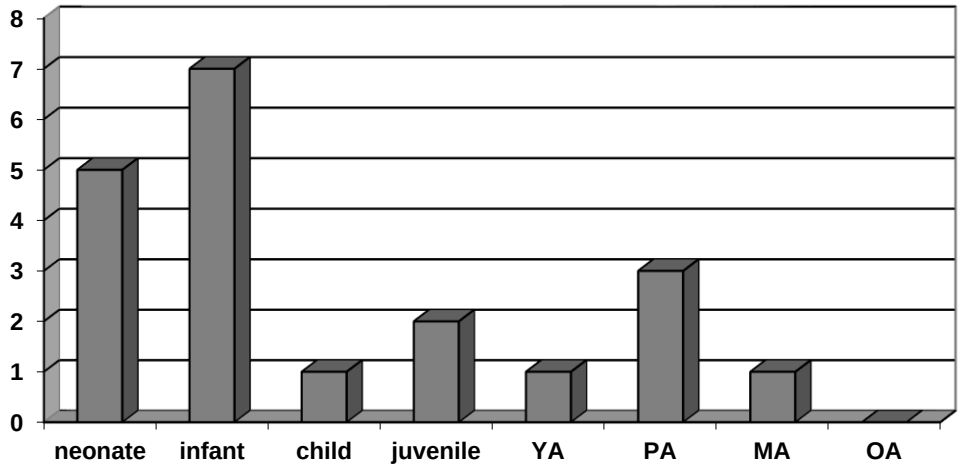

Chart 50: distribution of eating/drinking vessels in age categories

ii. pouring

All jugs, the bridge-spouted jars and one spouted cup belong to this use category, which is the second most frequent use category of vessels (Chart 56). In total, 21 vessels - 30.9% of the vessels- had been used or could have been used for pouring liquids.

Both the distribution and the percentage of pouring vessels were higher towards the end of the period under study, as a result of the increased use of jugs. Interestingly, the percentage of pouring vessels reduced during the MH III period in contrast with the high percentage of eating/drinking vessels during the same period (Charts 51, 52, 57, 58).

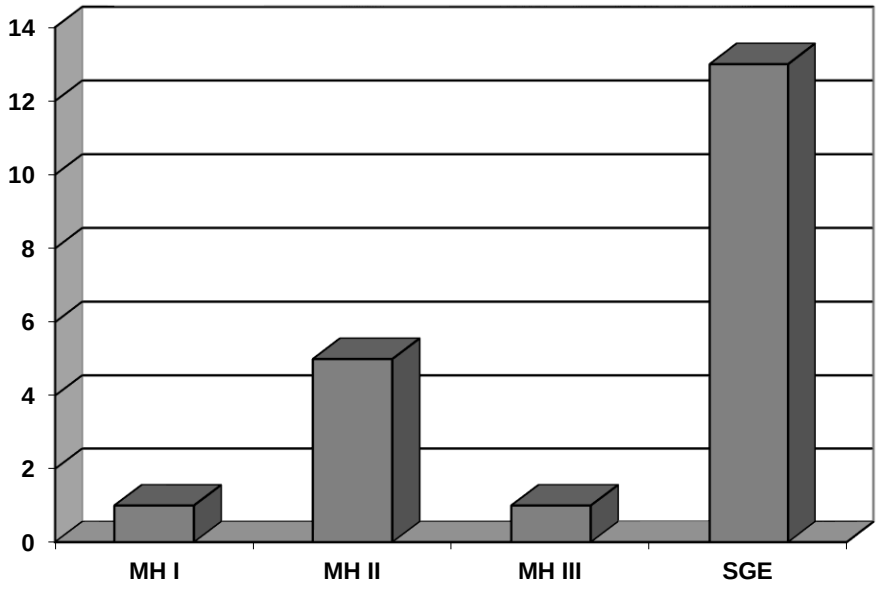

Chart 51: distribution of pouring vessels in each period

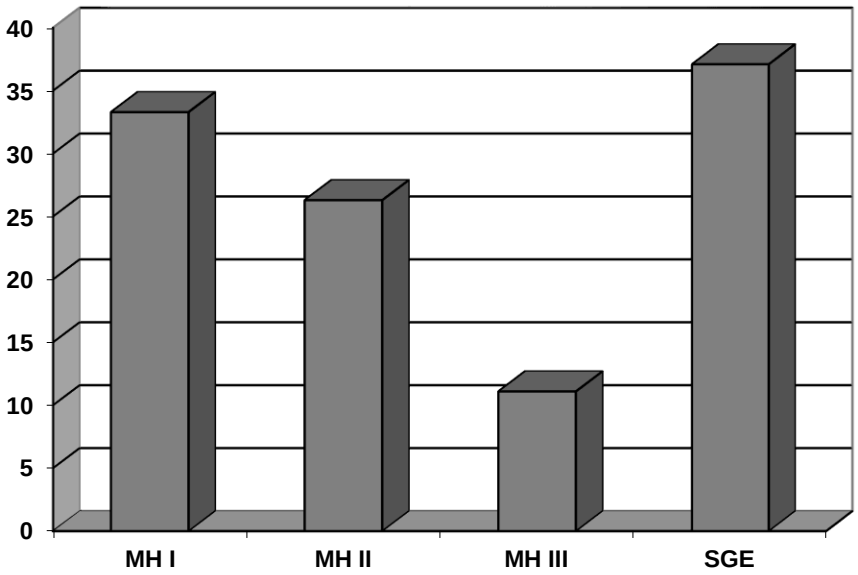

Chart 52: percentage of pouring vessels in each period

Pouring vessels were found in sub-adult and juvenile-adult burials (Table 68). However, in the sub-adult group, they were associated with older individuals than eating/drinking vessels. [74] In the adult group, they were exclusively associated with PA burials, confirming the observation made for jugs. Gender differentiation in the use of pouring vessels has not been observed (Chart 53, Table 68).

Sub-adults	6		
Juveniles	2	**Male:** -	**Female:** 1
Adults	5	**Male:** 3	**Female:** 2

Table 68: distribution of pouring vessels in age and sex categories

[74] Only once was a fragmented jug (L1214) found in the shaft above a neonate grave (DE 33, MH I).

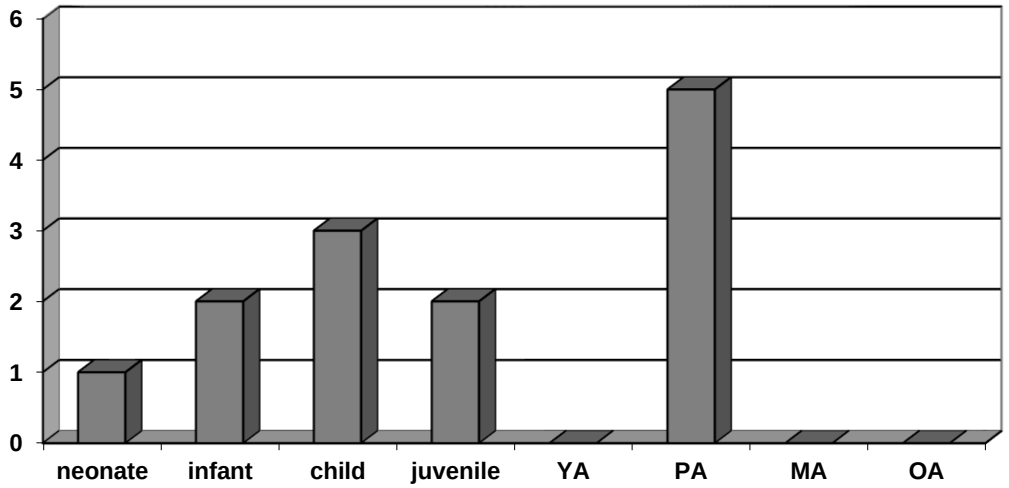

Chart 53: distribution of pouring vessels in age categories

iii. storing

This was the most uncommon use category. The non-spouted jars, the flask and the pyxis belong to this category. In total, 13 vessels -19.1% of the vessels- were used or could have been used for storing purposes (Chart 56). Almost half (6) of them, however, are associated finds. Most of the storing vessels date from the MH II period but their frequency declines through time (Charts 54, 55, 57, 58). Age and gender differentiation has not been observed.

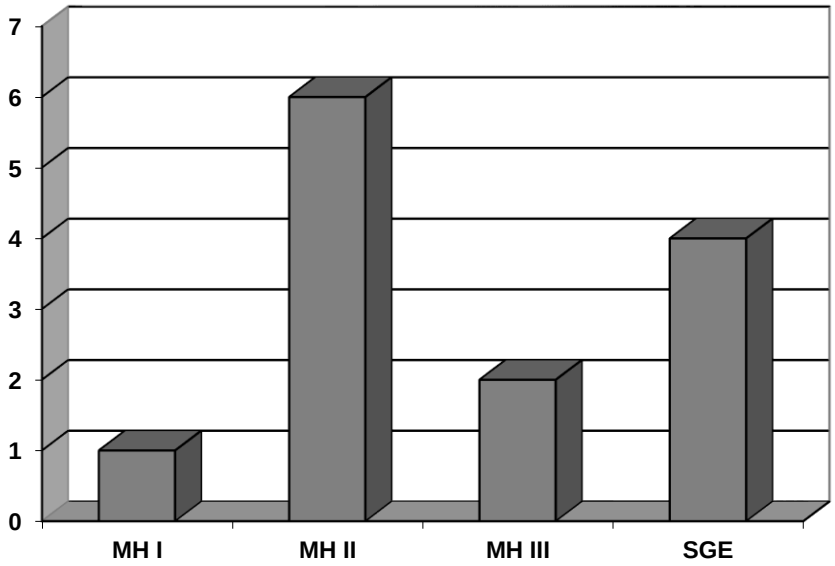

Chart 54: distribution of storing vessels in each period

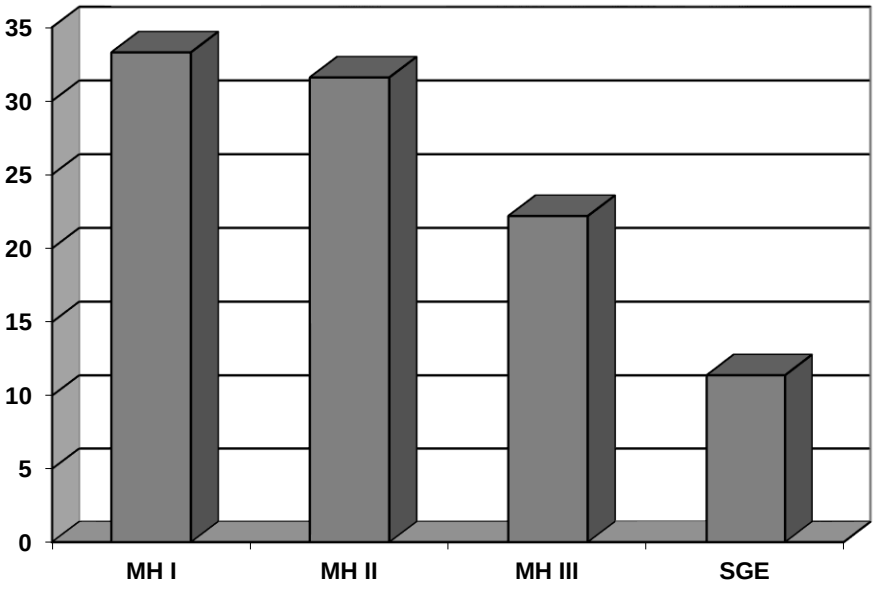

Chart 55: percentage of storing vessels in each period

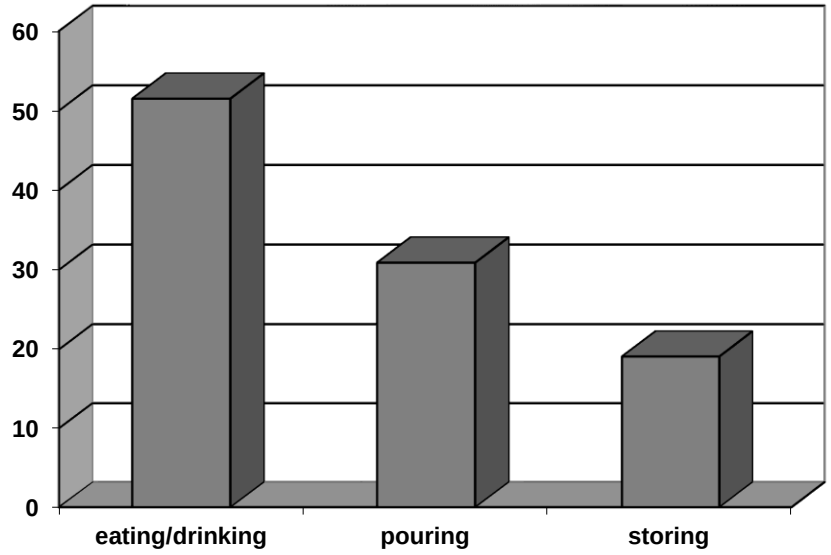

Chart 56: percentage of different use categories throughout the period

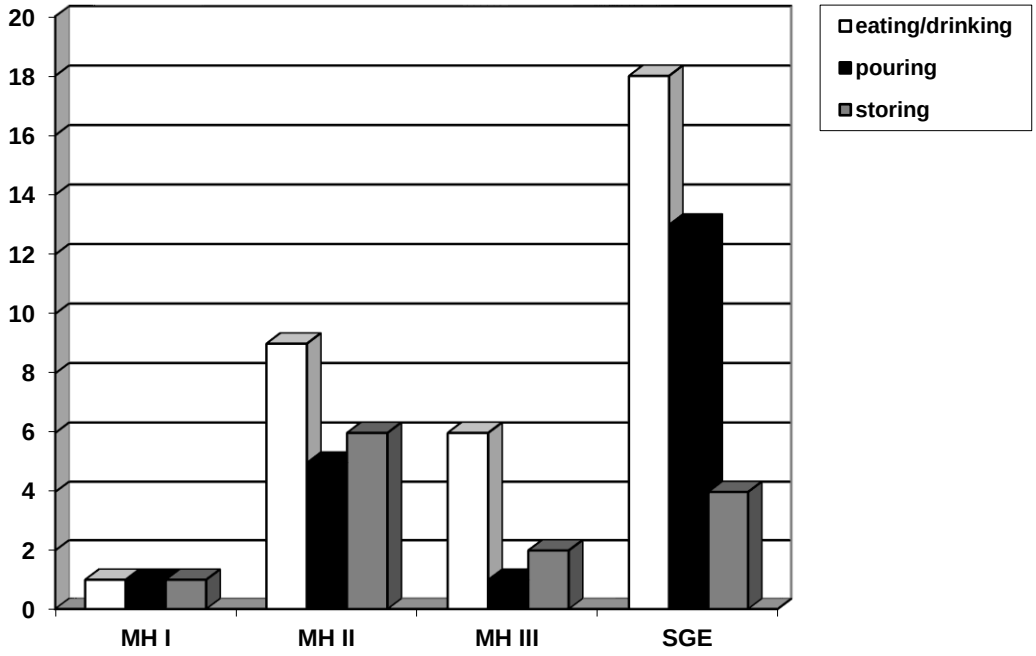

Chart 57: distribution of different use categories in each period

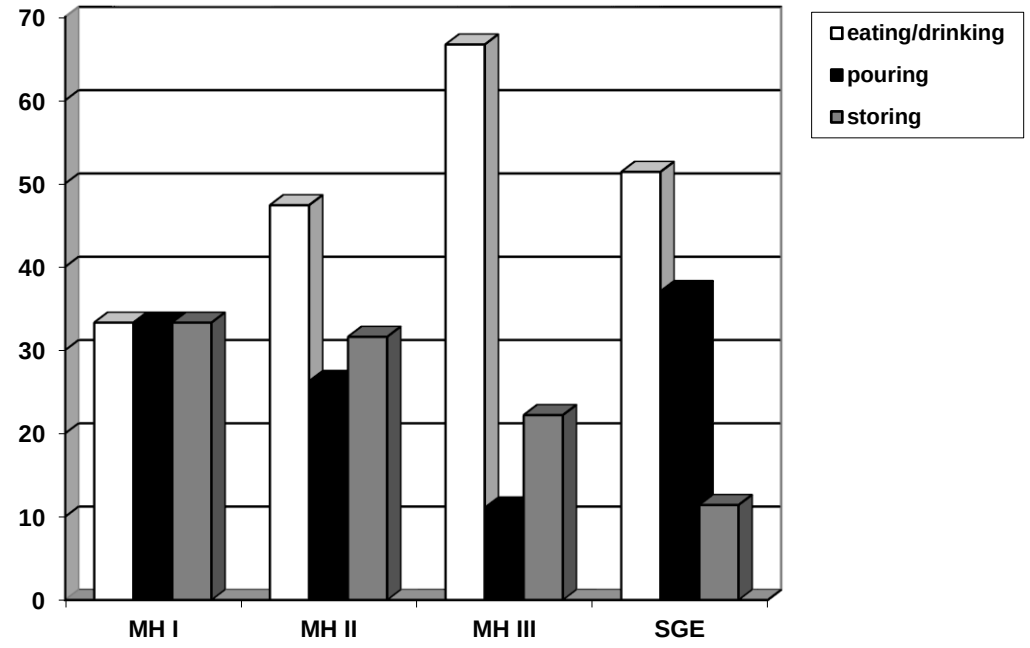

Chart 58: percentage of different use categories in each period

To conclude, eating and drinking vessels considered more appropriate for use in burials throughout the period, while pouring vessels became more common during the late phases. Gender differentiation has not been observed. On the other hand, subtle differences between age groups have been noted.

c. Size

Let me now turn to size and examine if it was important for the selection of the vessels deposited in the graves and if it was related with the age and gender of the deceased. The analysis is focused on miniature, small and large vessels.

Seven miniature vessels have been found in the graves at Lerna. By miniature I mean cups and jugs no higher than 6.0cm and jars no higher than 7.0cm.

Different types of cups (height: 4.5-6.0cm; diameter of mouth: 6.8-7.6cm), jugs (height: 5.0-5.5cm; diameter of mouth: 4.5-5.2cm), a jar (height: 6.5cm; diameter of mouth: 4.1cm) and a feeding bottle (height: 7.0cm) could be characterised as miniature. [75] All of them date from the **SGE** (Table 69, Chart 65).

Grave No	Catalogue No	Date	Shape
BC 1	L792	MH III/LH I	jug
BC 2	L791	MH III/LH I	jug
BC 4	L816	MH III/LH I	cup
DC 2	L923	LH I	cup
DC 4	L924	LH I	feeding bottle
DE 21	L974	LH I	jar
DE 39	L975	LH I	cup

Table 69: miniature vessels

Miniature vessels were more often correlated with sub-adult burials but never with neonates (Table 70, Chart 59).

Sub-adults	4		
Juveniles	1	**Male:** -	**Female:** -
Adults	1	**Male:** 1	**Female:** 0

Table 70: distribution of miniature vessels in age and sex categories

[75] It should be stressed that significant differences exist in the definition of 'miniature' between researchers.

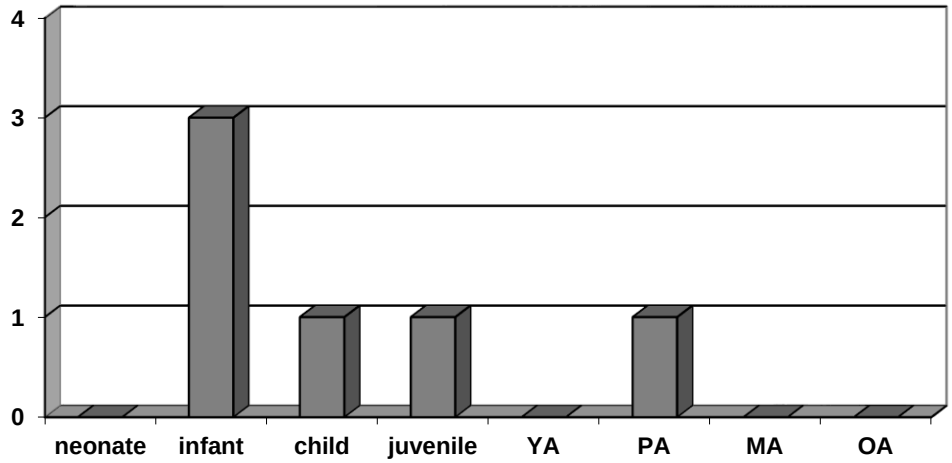

Chart 59: distribution of miniature vessels in age categories

Additionally, 19 small vessels have been found in the graves. Some of these vessels have been treated as miniature by other researchers (e.g. L920, L921, L926, L927, L987) (Blackburn 1970; Zerner 1990). In my view, based on their size, they are better characterized as small rather as real miniature.

Different types of cups (height: 6.5-10.7cm; diameter of mouth: 6.3-9.5cm), some jugs (height: 8.5-12cm; diameter of mouth: 3.6-5.8cm), one jar (height: 8.5cm; diameter of mouth: 6.0cm), one bowl (height: 7.0cm; diameter of mouth: 7.8cm), a pyxis (height: 8.5cm; diameter of mouth: 7.6cm) and a goblet (height: 8.0cm; diameter of mouth: 11.0cm) are included in this category (Table 71).

Grave No	Catalogue No	Date	Shape
J 2	L585	MH	cup
BD 27	L978	MH I	cup
BE 30	L1066	MH II	pyxis
C-F	L13	MH II	cup
BD 6	L981	MH III	cup
DE 30	L1217	MH III	bowl
DE 58	L1120	MH III	lid
B 2	L430	SGE	cup
BC 1	L793	SGE	cup
BC 3	L601	SGE	jug
BD 1	L920	SGE	cup
BE 3	L1058	SGE	cup
BE 6	L1160	SGE	cup
D 5	L78	SGE	cup

DC 2	L927	SGE	cup
DC 2	L926	SGE	goblet
DC 2	L922	SGE	jar
DC 2	L921	SGE	jug
DE 21	L987	SGE	jug

Table 71: small vessels

Small vessels first appear in the graves during the MH I period but they became more common towards the end of the MH period and the beginning of the LH (Charts 60, 61, 65).

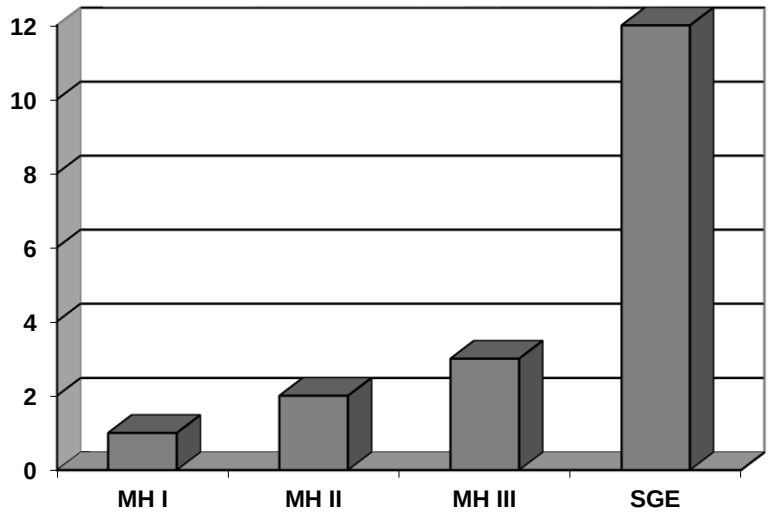

Chart 60: distribution of small vessels in each period

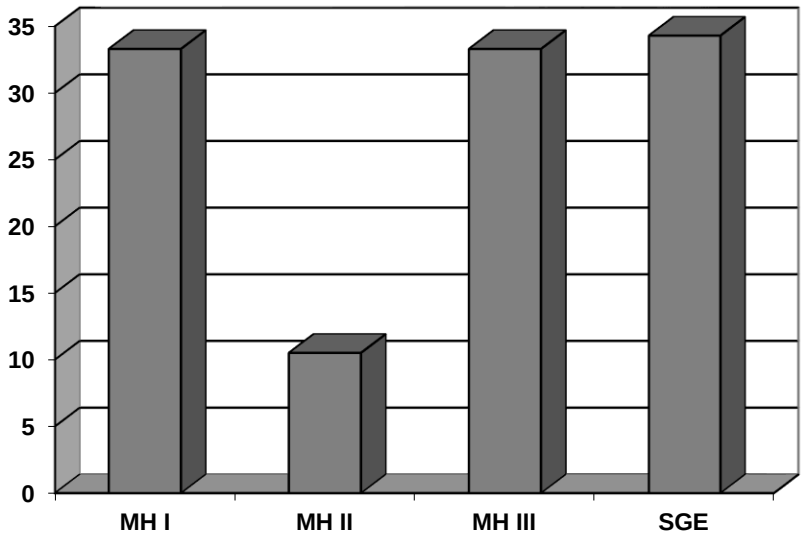

Chart 61: percentage of small vessels in each period

Small vessels were also primarily related with sub-adult burials (Table 72), mainly infants (Chart 62). The exact age of the female adult burial containing a small vessel is unknown. However, a small vessel was also found in double YA male-PA female burial (J2).

Sub-adults	9		
Juveniles	2	**Male:** -	**Female:** 1
Adults	1	**Male:** 0	**Female:** 1

Table 72: distribution of small vessels in age and sex categories

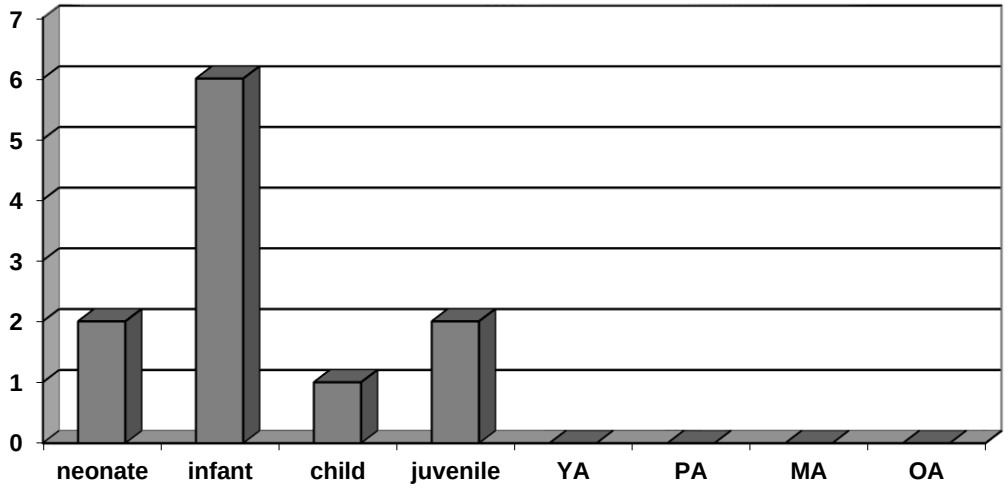

Chart 62: distribution of small vessels in age categories

On the contrary, large vessels, although not very common (8 vessels), were more often found during the early phases of the MH period (Charts 63, 65). It should be stressed, however, that only once a complete MH II jar (L270: H: 26cm, D: 11.7cm) was securely deposited in the grave at the time of the burial (B 12). Most of the remaining vessels were only partially preserved and they were found above or outside the graves.

During the MH I period the neck and shoulder of a large jar (L1235) and a large jug (L1214) were associated with graves. The jar was used as cover of the pithos burial DE 68. The broken jug was found in the fill above grave DE 33. Both are associated finds. During the MH II period, next to the jar mentioned above a large jug (L273, H: 38cm; D: 9.6cm) was, once again, used as a cover of the pithos burial D 17. Bowl L48 (half

preserved) and jars L100 (H: 31cm, D: 27.5cm) and L392 (H: 36cm, D: 14.5cm) were only partially preserved and they were not secularly related with the graves.
Finally, one large jar (L1111, H: 35cm, D: 20.5cm) dates from the SGE. This jar was found in the fill above grave DE 22 (Table 73).

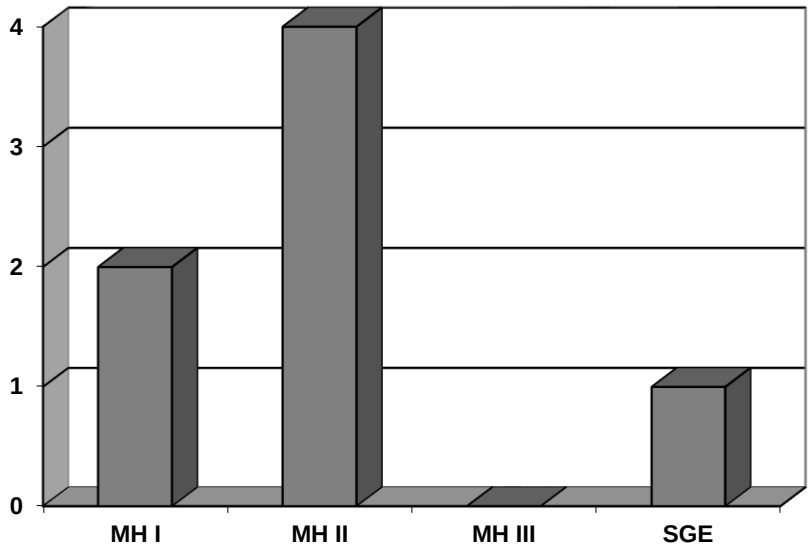

Chart 63: distribution of large vessels in each period

Grave No	Catalogue No	Date	Shape
DE 68	L1235	MH I	jar
DE 33	L1214	MH I	jug
C-F	L48	MH II	bowl
B 12	L270	MH II	jar
BA 1	L392	MH II	jar
A 2,3,4	L100	MH II	jar
D 17	L273	MH II	jug
DE 22	L1111	SGE	jar

Table 73: large vessels

Large vessels were quite more often associated with sub-adult graves (Table 74, Chart 64). However, the only complete jar intentionally deposited as an offering it was found in a double YA male-PA female burial (B 12).

Sub-adults	4		
Juveniles	1	**Male:** 0	**Female:** 1
Adults	2	**Male:** 1	**Female:** 1

Table 74: distribution of large vessels in age and sex categories

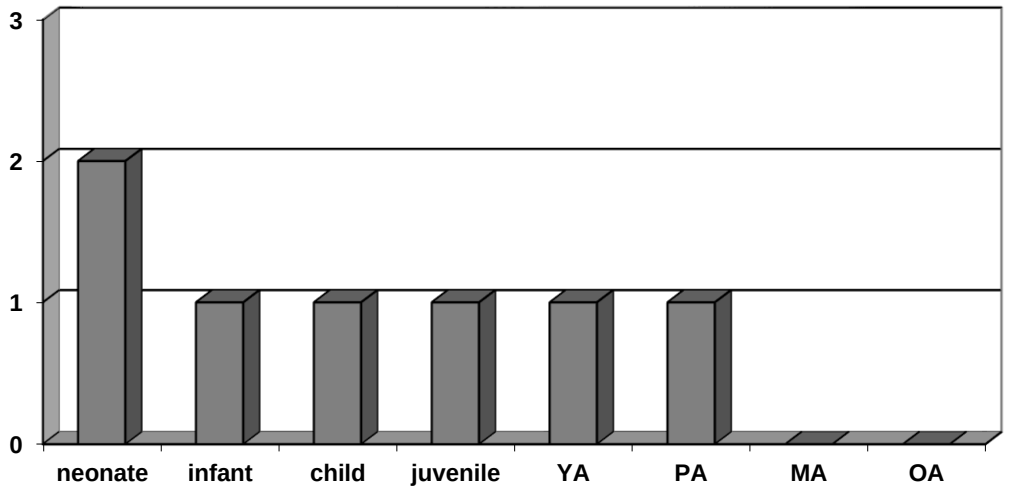

Chart 64: distribution of large vessels in age categories

The remaining 34 vessels of various shapes were of medium size. No pattern concerning their distribution emerges.

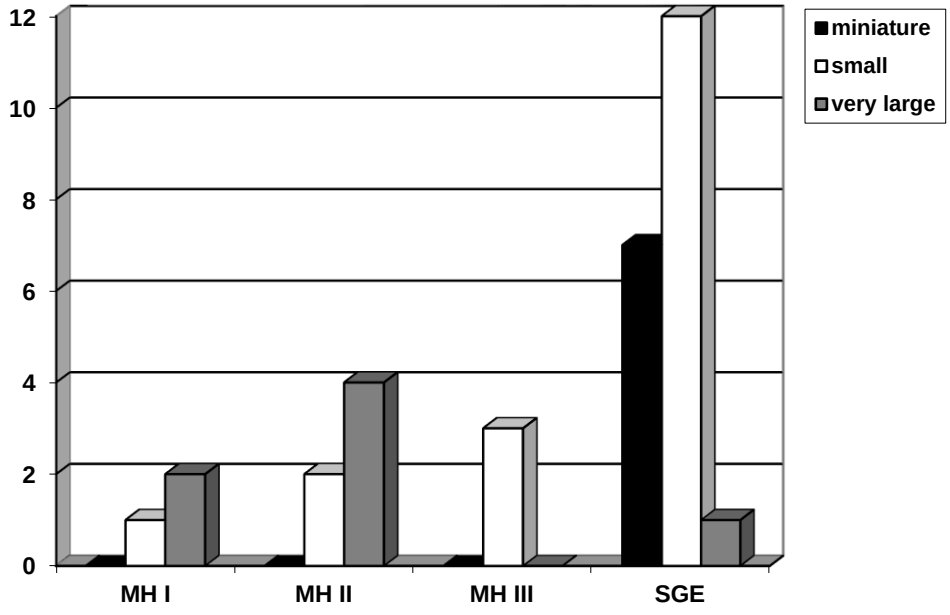

Chart 65: distribution of different vessel sizes in each period

We see therefore, that as time passes small and miniature vessels were more often selected for the burials. Those vessels were more often deposited in sub-adult burials.

d. Wares

This section does not mean to give a detailed and systematic study of pottery wares. Rather, the aim is to ascertain general attitudes towards the quality of the pottery deposited in the graves. A general distinction between fine-medium and coarse wares has been made in order to examine which category was considered more appropriate for mortuary use. Moreover, the existence of imported vessels is examined as an indication of external relations of the individual and the group where they were found. Both coarse and medium-fine wares have been found in Lerna. However, medium-fine wares predominate in every period. In total, 47 vessels were made of medium–fine fabrics. The highest percentage of medium-fine fabrics is observed during the MH II period (Charts 66, 67). The difference between medium-fine and coarse wares is less marked during the MH III period (Chart 70).

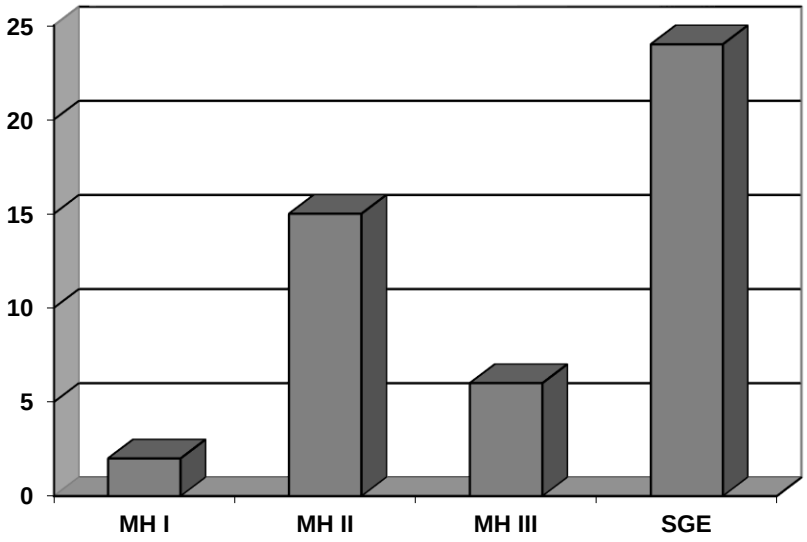

Chart 66: distribution of medium-fine wares in each period

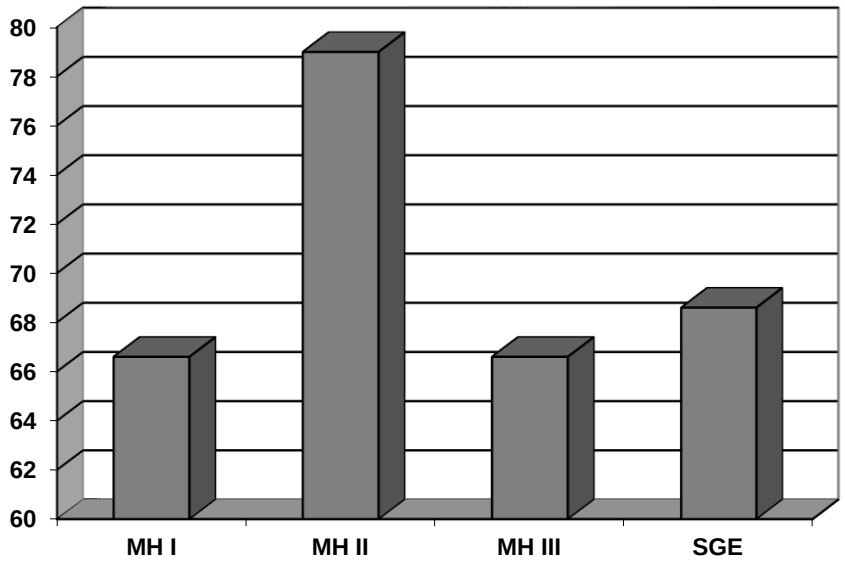

Chart 67: percentage of medium-fine wares in each period

On the other hand, 20 vessels were made of coarse fabrics, usually referred as cooking ware. Most of the coarse ware vessels date from the SGE. However, the percentage of coarse wares remains the same in every period except from MH II when it was lower (Charts 68, 69).

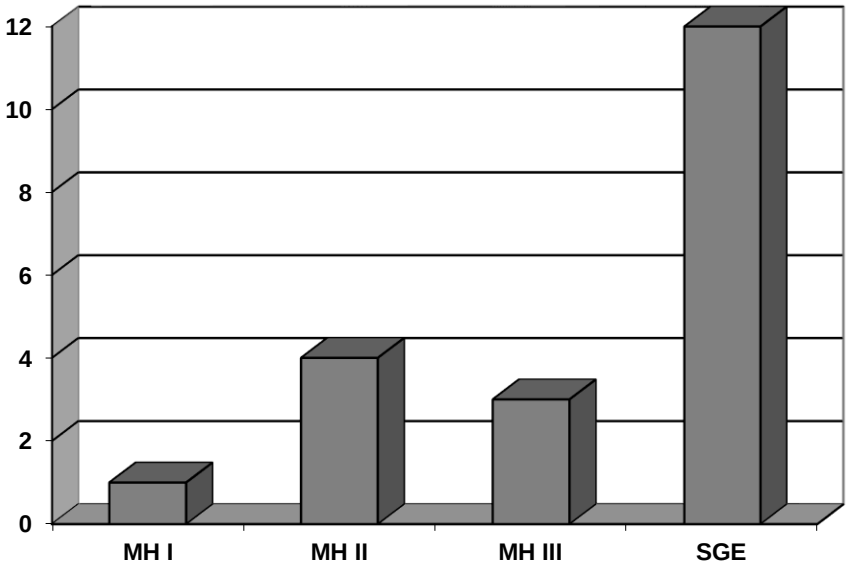

Chart 68: distribution of coarse wares in each period

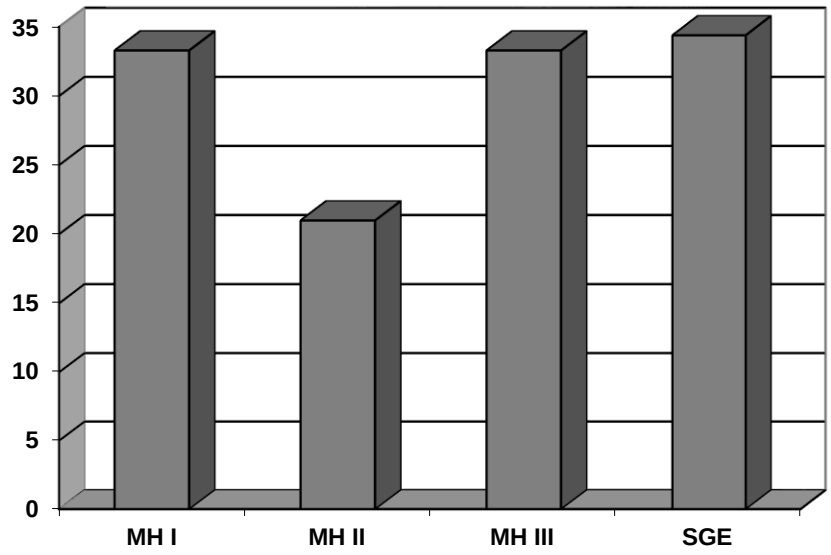

Chart 69: percentage of coarse wares in each period (of overall pottery)

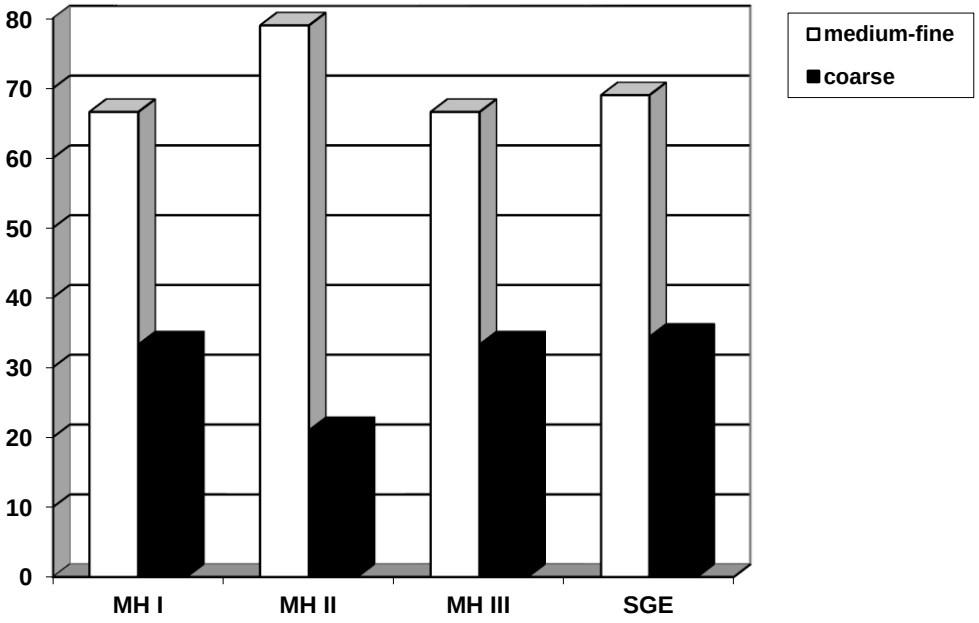

Chart 70: percentage of medium-fine and coarse wares in each period

Medium and fine ware vessels were thus considered more appropriate for a burial use. This preference was more emphasized during the MH II period.

Imports

The existence of imported vessels in the burials raises the question of external relations of the deceased and the group in which he or she belonged.

About 26.3% (+/-20 vessels) of the pottery found in the graves was imported (Zerner 1990). It should be mentioned, however, that seven of this vessels were associated finds. Most of the imports came from Aegina and from a pottery centre in the SE Peloponnese, probably Kythera or Ayios Stefanos (Kiriatzi 2010). Pottery was also imported from the Cyclades and to a lesser extent from Crete. One vessel (L48) may have been imported either from Central Greece or it is a local product, while the origin of another vessel (L270) is unknown (Tables 75, 76).

Origin	Catalogue No	Ware	Grave No	Date	Shape	Group
Aegina	L1235	Aeginetan MP	DE 68	MH I	jar	A
Aegina	L100	Aeginetan MP	A 2,3,4	MH II	jar	C
Aegina	L392	Aeginetan MP	BA 1	MH II	jar	-
Aegina	L980	coarse Aeginetan	BE 30	MH II	cup	B
Aegina	L1072	Aeginetan plain or MP	BE 12	MH III	jar	B
Aegina	L1217	Aeginetan gray burnished	DE 30	MH III	bowl	A
Aegina	L926	Aeginetan red slipped and burnished	DC 2	LH I	goblet	-
Aegina?	L987	White on red/ micaceous red slipped and burnished	DE 21	LH I	jug	G
Aegina or Cyclades	L1066	Aeginetan or Cycladic MP	BE 30	MH II	pyxis	B
SE Peloponnese	L1214	Lustrous decorated /Light on dark	DE 33	MH I	jug	A
SE Peloponnese	L13	Lustrous decorated /polychrome	C-F	MH II	cup	-
SE Peloponnese	L91	Lustrous decorated/ polychrome	A 10	MH III	bowl	C
SE Peloponnese	L1206	Lustrous decorated /polychrome	BD 21	MH III	cup	-
Cyclades	L989	Cycladic burnished	BD 19	MH III	jug	-
Cyclades (Thera or Melos)	L933	Cycladic MP	BD 19	MH III/LH I	jug	-
Cyclades	L1111	Cycladic	DE 22	MH III or LH I	jar	G
Crete	L1052	polychrome/ Central Cretan, Kamares	J 4B	MH II	jar	-
Crete	L925	Minoan	DC 2	LH I	jar	-
Central Greece?	L48	GM	C-F	MH II	bowl	-
?	L270	white on red (light on dark)	B 12	MH II	jar	-
?	L1667	micaceous	BE 20	MH III	cup	B

Table 75: Catalogue of imported vessels

Origin	No of vessels	% in total of pottery
Aegina	8-9	13%
SE Peloponnese	4	5,8%
Cyclades	3-4	5,8%
Crete	2	3%

Table 76: total number and percentage of imported vessels

Most of the imported vessels date from the MH II period (Chart 71). Generally, the percentage of imported vessels in the tombs is higher during the early phases of the MH period (Chart 72).

In any case, however, the amount of imported pottery found in the MH I-II graves is much lower than in the settlement (Voutsaki 2016, 74).

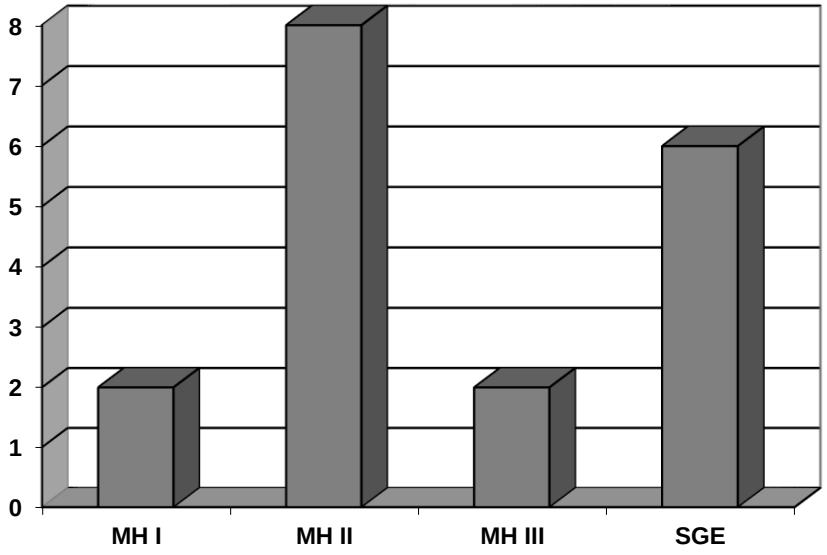

Chart 71: distribution of imported pottery in each period[76]

[76] Including the seven associated vessels.

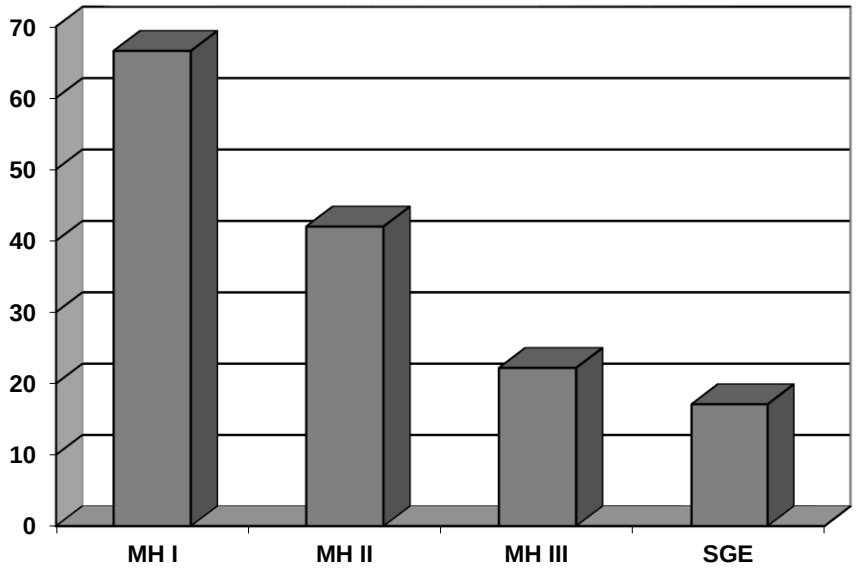

Chart 72: percentage of imported pottery in each period

Imported vessels were deposited both in sub-adult and juvenile-adult graves and with both sexes (Table 77). Their distribution between age categories reveals almost the same pattern as pottery in general. The only difference is that children did not receive imported vessels (Chart 73).

Sub-adults	8		
Juveniles	1	**Male:** 0	**Female:** 1
Adults	6	**Male:** 4	**Female:** 2

Table 77: distribution of imported vessels in age and sex categories

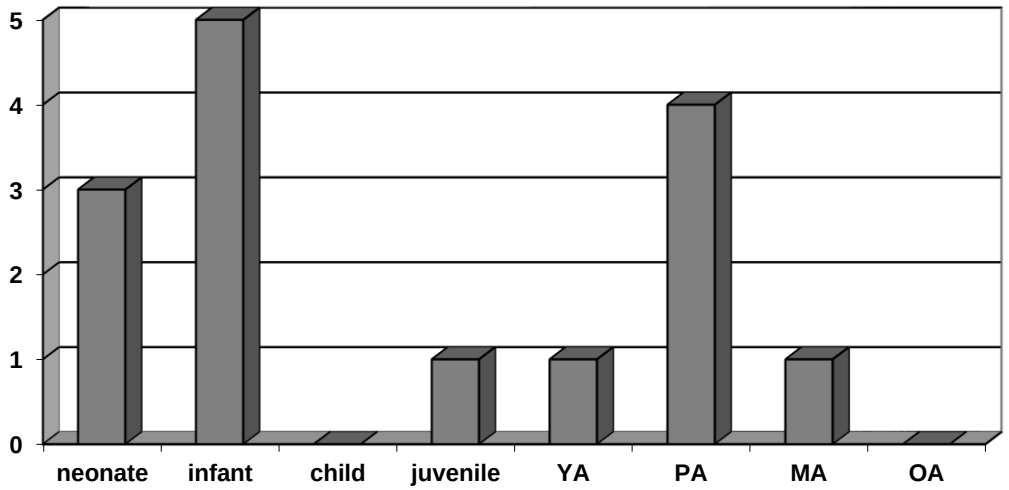

Chart 73: distribution of imported vessels in age categories

The distribution of imported vessels in the grave groups was uneven (Chart 74). Once again, groups A and B stand out as most of the imported pottery was found there. Moreover, the highest percentage of graves with imported vessels is observed in group A (Charts 75, 76). This group has the earlier imported pottery (2 MH I vessels). Groups C and G had fewer imported vessels. In group G all imported vessels date from the LH I period. It should be noted, however, that many of the graves with imported pottery do not belong to any of the burial groups formed here.

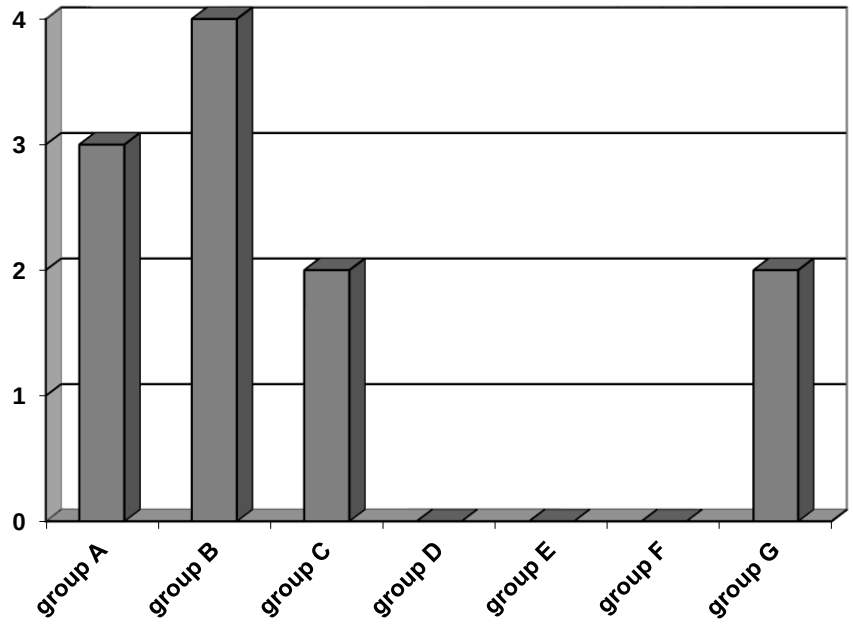

Chart 74: distribution of imported vessels in each grave group

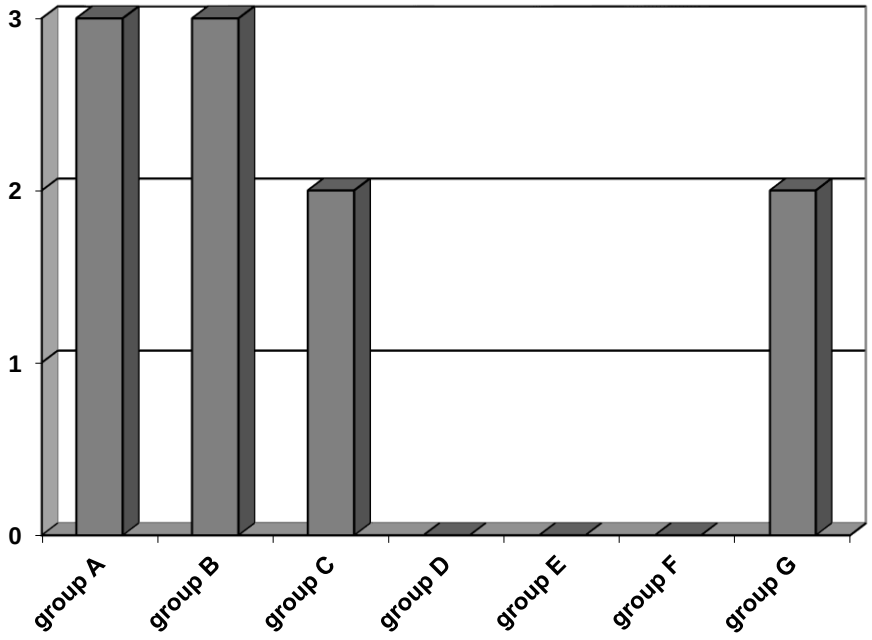

Chart 75: distribution of graves with imported vessels in each grave group

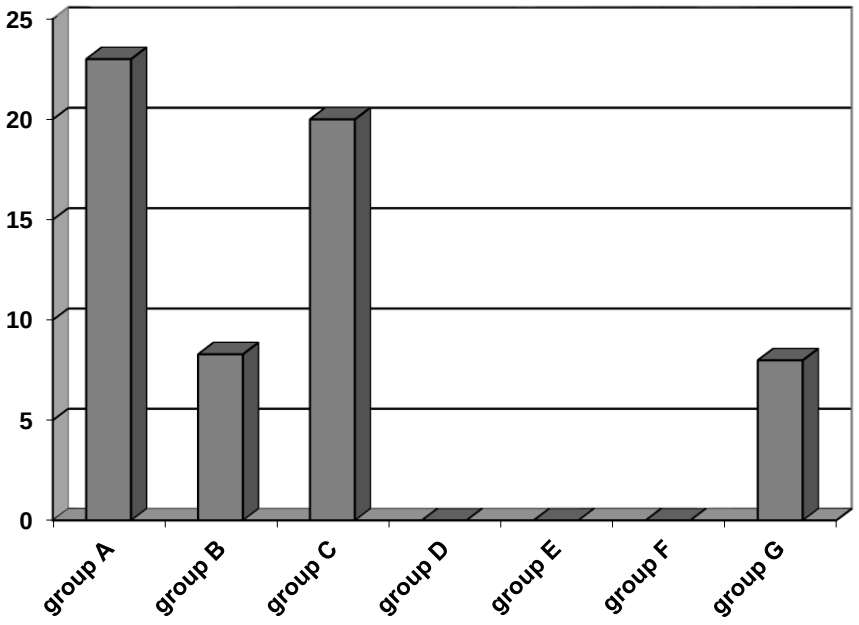

Chart 76: percentage of graves with imported vessels in each grave group

To conclude, the imported pottery found in the graves follows the general pattern revealed from the settlement: the majority of the vessels came from Aegina and they date from the early phases of the MH period. However, the percentage of imported pottery found in graves is lower than in the settlement. Age and gender differentiation

on the deposition of imported vessels has not been observed. On the other hand, differentiation between the grave groups was marked. It can be argued that the external relations of some of them were emphasised through the deposition of imported pottery in the graves during the funeral. However, a further comparison with the settlement material is necessary to clarify in what extent those relations were expressed in burials.

e. Preservation

In this section breakage patterns of the pottery found in the graves will be examined. The vessels were divided into four categories, based on their preservation. The ultimate goal is to examine if the integrity of the vessels was important for their burial use and if breakage patterns change through time.

i. Intact or broken but whole preserved: 40 whole vessels, intact or broken, have been associated with graves (58.8% of the vessels). However, we cannot say if the broken vessels were broken on purpose during the burial, or accidentally after their deposition. Nevertheless, the frequency of whole vessels steadily increased through time (Charts 77, 78, 83).

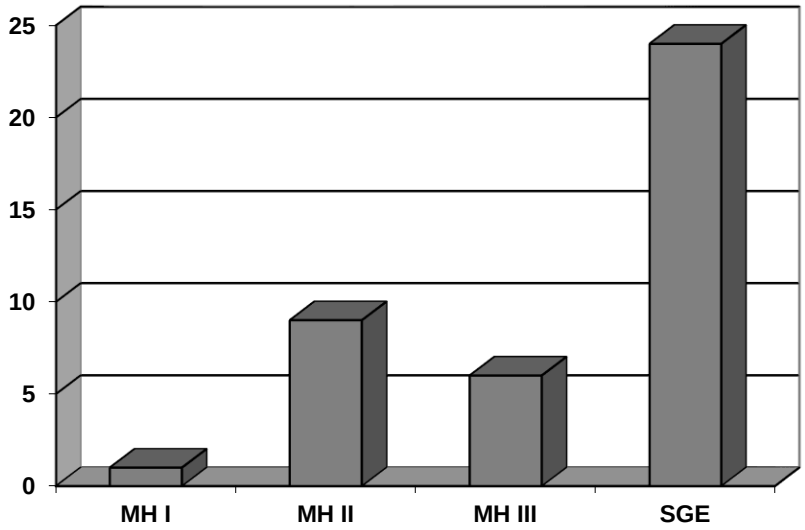

Chart 77: distribution of whole vessels in each period

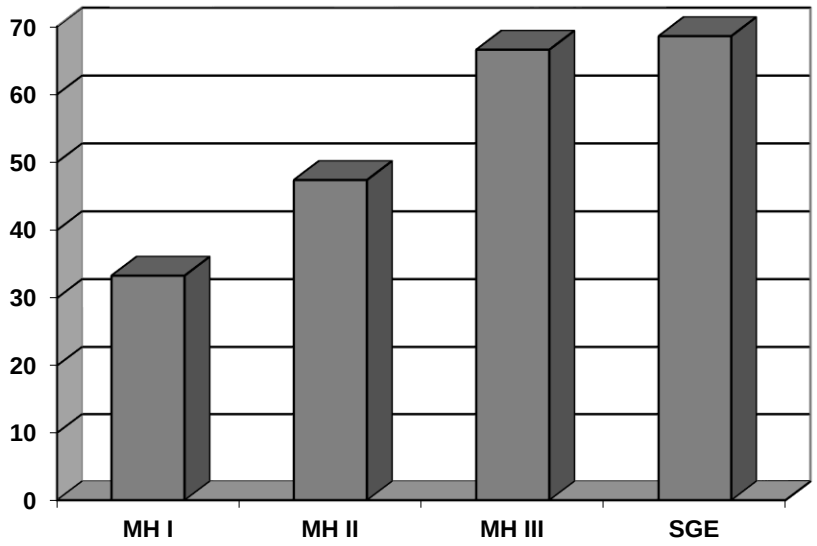

Chart 78: percentage of whole vessels per period

ii. Broken, sherds missing: 13 vessels were broken and some sherds were missing (19.1% of the vessels). These were usually handles and parts of the rim. Although the possibility cannot be excluded that some sherds were lost during the excavation, especially when the vessels were found broken, the missing sherds might as well have been intentionally kept by the living. When the vessels were found unbroken, some parts were probably missing before they were deposited in the burial. This is a strong evidence that the vessels were not made especially for burial use but they have been used for some time before their deposition in the graves. Chipping and worn traces on their surfaces reinforces this hypothesis.

Vessels of this category date from the MH II period and from the late phases of the period under study. They were quite frequent only during the MH II period (Charts 79, 80, 83).

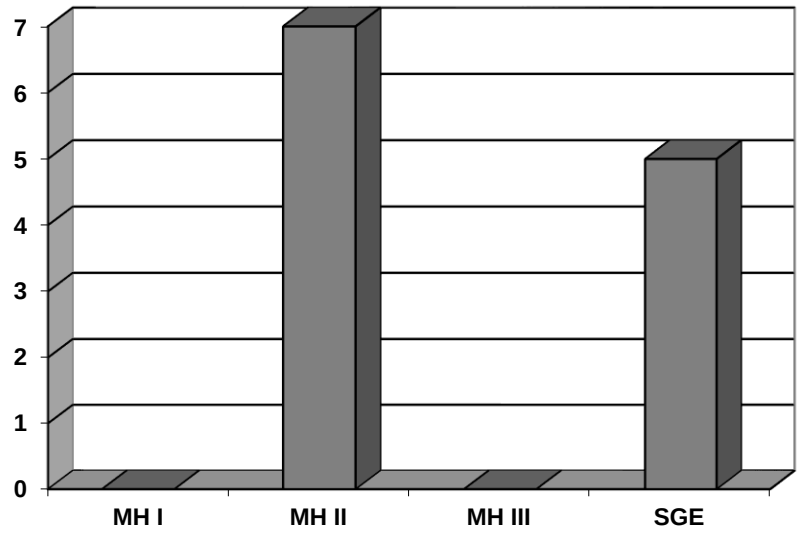

Chart 79: distribution of broken vessels from which some sherds were missing in each period

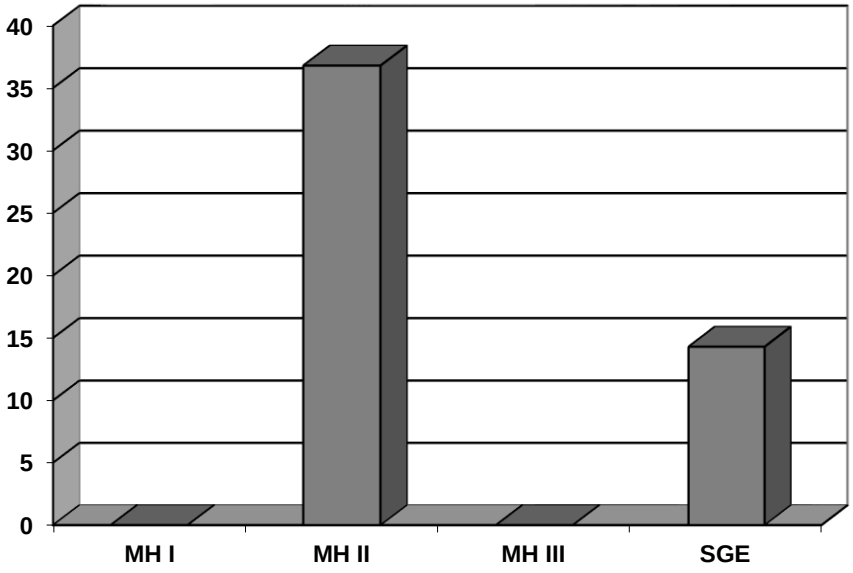

Chart 80: percentage of broken vessels from which some sherds were missing in each period

iii. Broken, more than 1/3 missing: A large part of the body was missing from 14 vessels (20.6% of the vessels). These vessels were either already broken before they were deposited in the grave or they were intentionally broken during the funeral and only a part of them was placed in the grave with the deceased.

The percentage of incomplete vessels decreases through time (Charts 81, 82, 83). This pattern fits well with the opposite pattern observed for the complete vessels (see above) (Chart 78).

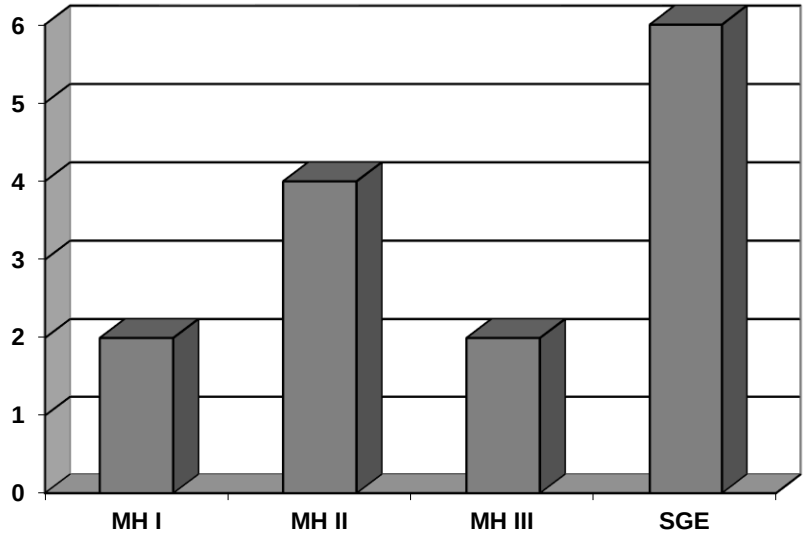

Chart 81: distribution of broken vessels from which more than 1/3 was missing in each period

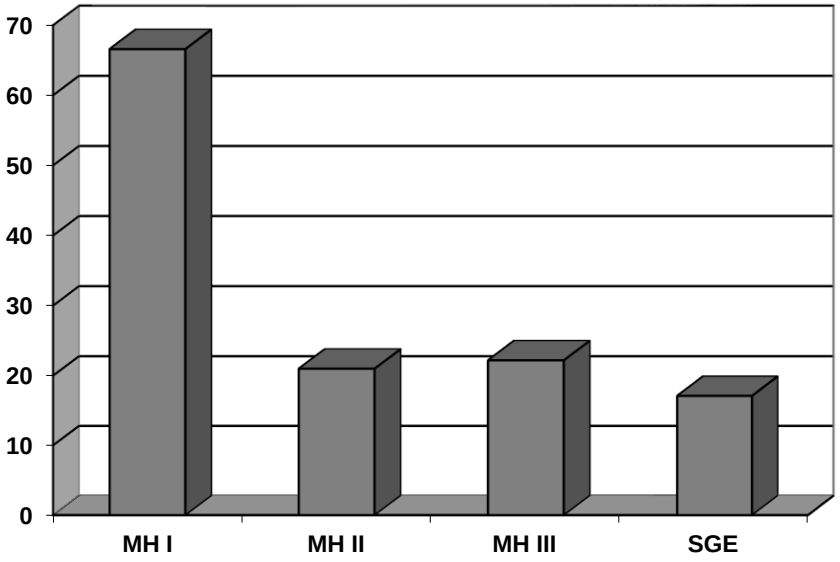

Chart 82: percentage of broken vessels from which more than 1/3 was missing in each period

iv. Broken, single sherd preserved: In addition, the existence of single sherds is referred in eight graves. These eight sherds, however, were treated differently because of their special features e.g. a potter's mark, a lead clam. This category will not be analysed any

further here as the presence of sherds in the graves was not systematically recorded or has not been systematically published until now.

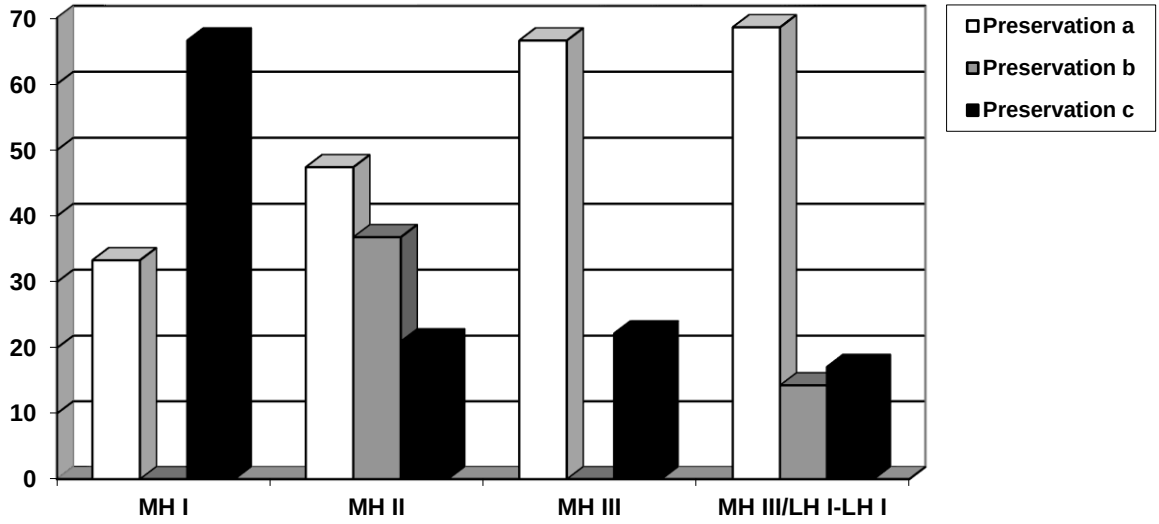

Chart 83: different vessel preservation in each period (percentage)

We see therefore that a change in the burial ritual was observed; during the early phases of the MH more partially preserved vessels were deposited in the graves, while towards the late phases more complete vessels were placed with the deceased. It seems that as time passes the integrity of the vessels was becoming more important and a pottery fragment was not adequate to represent the whole.

f. Position

The placement of the vessels in relation to the body will be discussed in this chapter. Age and gender differentiation will be examined.

i. Around skull: 25 vessels were deposited close to the skull of the skeleton (36.7% of the vessels). The area around the skull was the most frequently selected area for the placement of pottery (Chart 86). Mostly cups (10), jars (6) and jugs (5) were found close to skull. The skull area was more frequently selected towards the end of the period under study (Charts 87, 88).

Vessels were deposited near the skulls of sub-adults and juvenile-adults and with both sexes (Table 78, Chart 84).

Sub-adults	6		
Juveniles	1	**Male:** -	**Female:** -
Adults	6	**Male:** 3	**Female:** 3

Table 78: distribution of vessels deposited near skull in age and sex categories

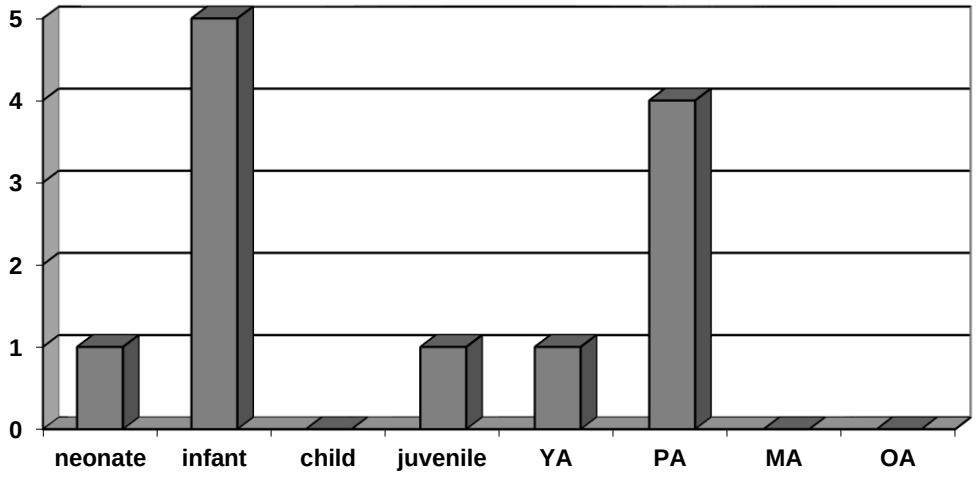

Chart 84: distribution of vessels deposited near skull in age categories

ii. Between chest and pelvis: 17 vessels were deposited in the area between the chest and the pelvis of the skeleton (25% of the vessels). This is the second more frequent area for the placement of a vessel (Chart 86). Cups (7) and jugs (6) were mostly deposited in this area, but other shapes have also been found. This area of the body was quite more often preferred during the very last phases of the period under study. It was never selected during the MH I period (Charts 87, 88).

Vessels were more often deposited in the area between chest and pelvis of sub-adult individuals of different age groups (Table 79, Chart 85). The small size of sub-adult skeletons and of their graves may in part result in this pattern.

Three vessels[77] were placed upon, rather next to the skeleton. In those cases, the connection between the body and the object is more direct. However, no pattern concerning the distribution of those graves emerges.

[77] Grave J4A, L1018, SGE, on chest of skeleton 216Ler, PA male; Grave BE30, L988, MH II, on chest of skeleton 137Ler, multiple burial; Grave BD6, L929, MH III, on pelvis of skeleton 86Ler, neonate.

Sub-adults	7		
Juveniles	2	**Male:** 0	**Female:** 2
Adults	2	**Male:** 2	**Female:** 0

Table 79: distribution of vessels deposited between chest and pelvis in age and sex categories

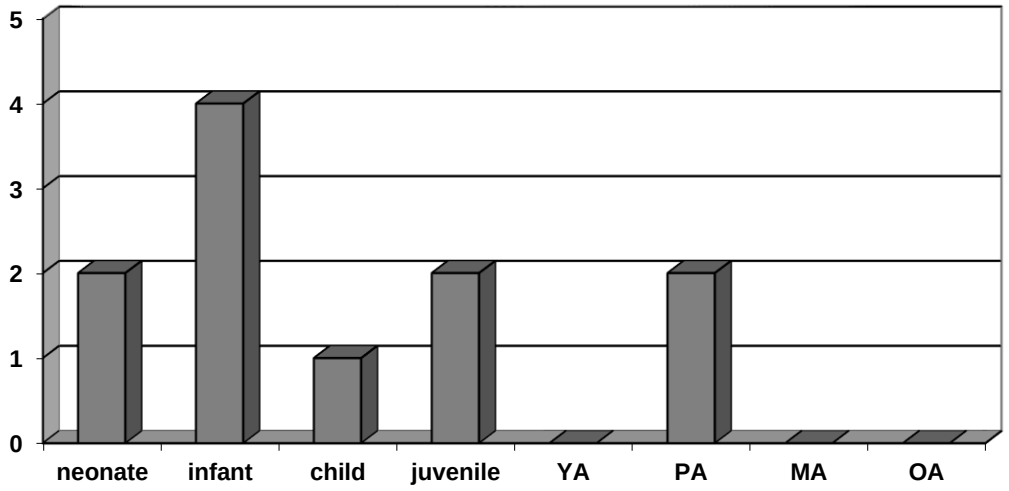

Chart 85: distribution of vessels deposited between chest and pelvis in age categories

iii. Close to legs: Six vessels were deposited near the legs of the skeleton (8.8% of the vessels). The area around the legs was the less often selected area for the placement of a vessel (Chart 86). Five cups and a jar were placed in this area. The lower skeleton area was not always chosen because they were running out of space inside the grave. Usually, no other vessels were placed in the burial.

In contrast with the skull area, the leg area seems to have been chosen less frequently through time (Chart 87, 88). However, some caution is necessary because the numbers are very small. Vessels were deposited close to the legs of sub-adults and adult males (Table 80).

Sub-adults	2		
Juveniles	0	**Male:** 0	**Female:** 0
Adults	2	**Male:** 2	**Female:** 0

Table 80: distribution of vessels deposited close legs in age and sex categories

iv. Generally in the grave: The exact position of 12 vessels in the grave is unknown (17.6% of the vessels). These vessels may have been found broken or intact in the grave (5) or inside burial jars (3), or broken in the grave fill (4).

v. Outside or above grave: Five vessels were found either upon the cover slabs, either next to the three graves (7.3% of the vessels). A bowl was found outside the MH II grave C-F, where a juvenile female (16Ler) was buried. Two cups were found outside the SGE grave B2, where an adult female was buried (Table 81). Finally, a cup and a jug were found above the cover slabs of the LH I grave BC3, which was found empty. Thus, more vessels were found outside or above the graves towards the later phases of the period under study. It is not clear, however, whether the vessels were deposited at the time of the funeral or during a later re-visiting of the graves. If the bones from grave BC3 have been removed, then we can speculate that the vessels were placed upon the cover slabs after the grave was re-opened.

Sub-adults	0		
Juveniles	1	**Male:** 0	**Female:** 1
Adults	1	**Male:** 0	**Female:** 1

Table 81: distribution of vessels deposited above or outside grave in age and sex categories

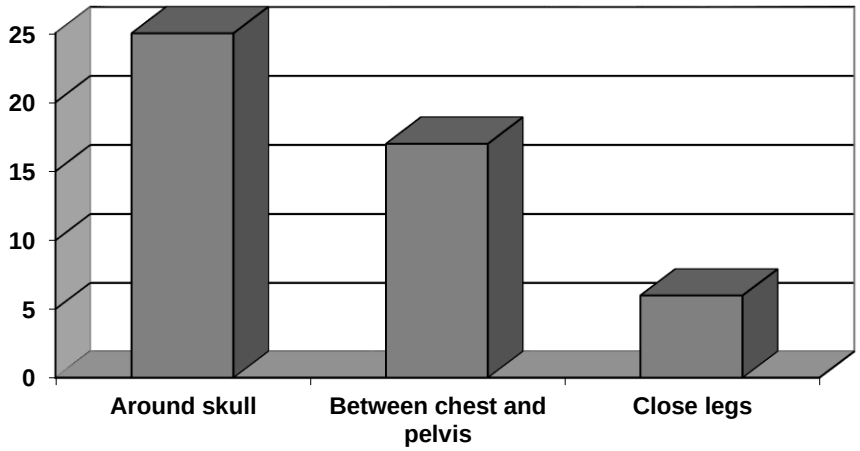

Chart 86: distribution of vessels in relation to the skeleton

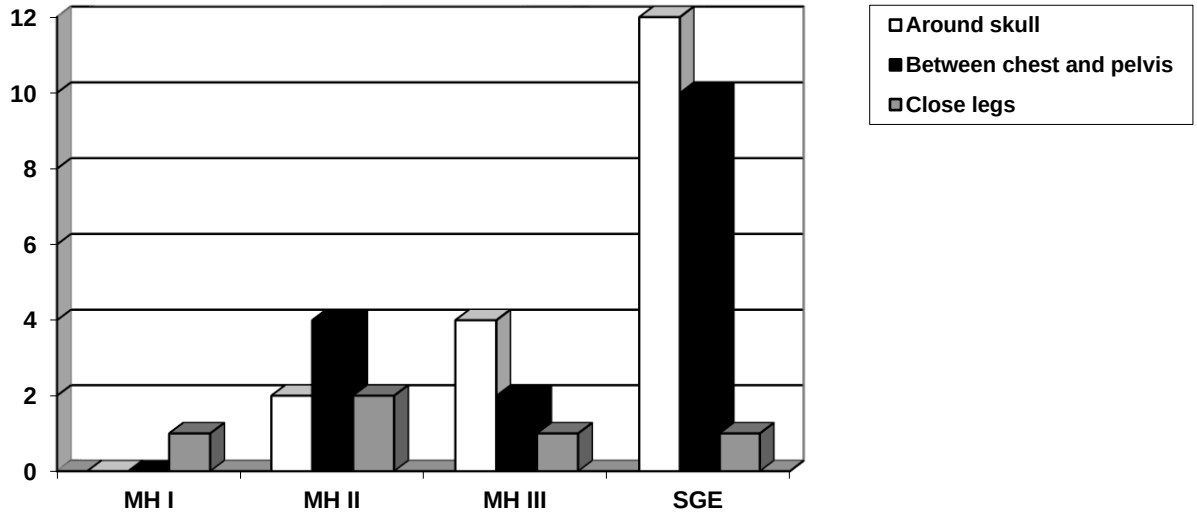

Chart 87: position of vessels in each period (distribution)

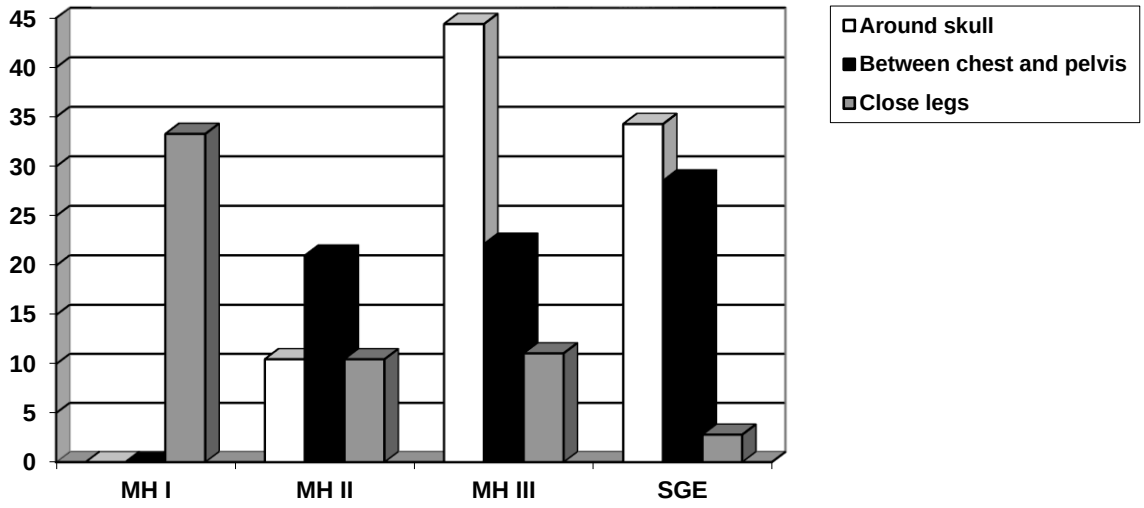

Chart 88: position of vessels in each period (percentage)

We see therefore that no clear age or gender differentiation was observed in the placement of the pottery in relation to the skeleton. Overall, vessels were more often deposited close to skull. The skull area was more often selected towards the end of the MH period.

Let me repeat the main observations made on pottery. In general, less than ¼ of the graves at Lerna contained pottery and none of them contained a large amount of vessels.

Through time however, the percentage of graves containing pottery and the amount of pottery found in them increases. Those graves were more often cists. There is thus a correlation between grave type and pottery offerings. Cups and jugs were by far the most common vessels found in the graves. During the transitional MH III/LH I period pottery sets consisting of these two vessels were sometimes placed in the tombs. Eating and drinking vessels predominate, but as time passes pouring vessels became more frequent. At the same time, more complete vessels were put in the tombs.

Some age differentiation in the deposition of pottery has been observed. Overall, vessels were more often deposited in sub-adult graves and never with adults older than PA. Gender differences were not apparent. In general, however, the percentage of female graves containing pottery was higher.

Finally, the distribution of pottery in the graves groups is uneven. Most of the graves containing vessels belong to group B and the same holds true for imported vessels.

1.4.3 Non pottery finds

Next to pottery, 134 non pottery objects have been found in relation to 73 graves (33.2%). In addition, organic remains of animals, shells or plants have been mentioned in 39 graves. These finds are divided here into six broad categories: tools, ornaments, tools or ornaments, weapons, miscellaneous objects and organic remains (Charts 89, 90). In each category the objects are examined according to their use and to their material. The organic remains are divided into animal bones, shells and charred grains. When possible, the animal, shell and plant species are examined.

The aim of the analysis is to examine the variability of the burial assemblage and to raise questions of differentiation between groups and individuals based on the objects deposited in the graves.

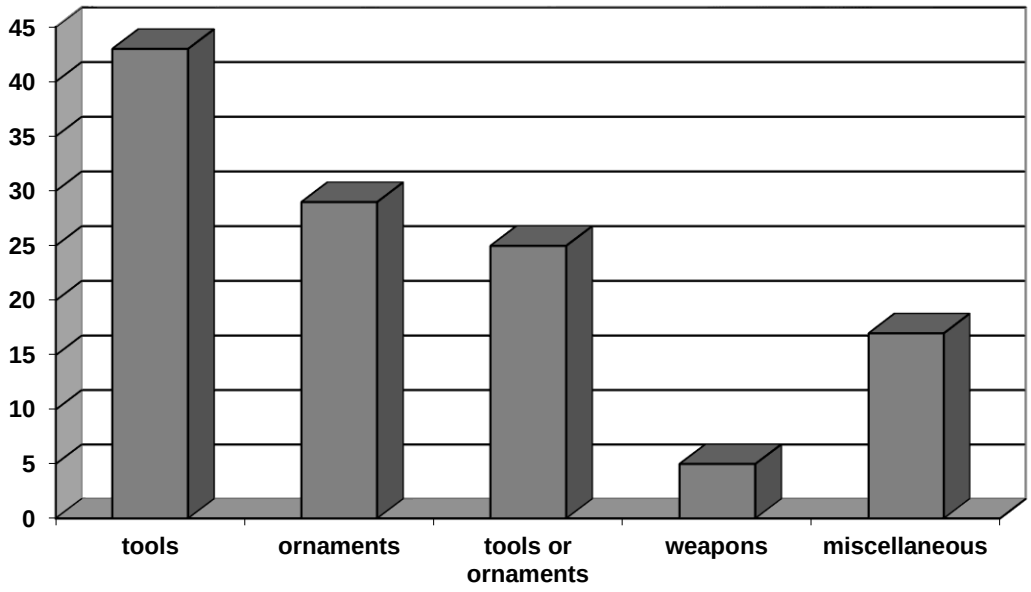

Chart 89: quantity of objects in each category

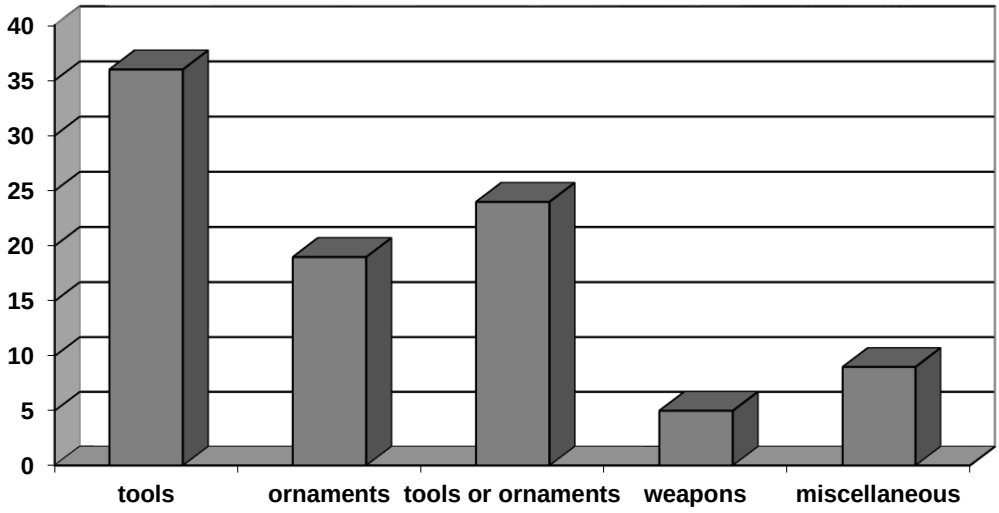

Chart 90: number of graves with objects of different categories

From the 73 graves which contained non-pottery objects, 43 -58.9%- were cists of different types, 26 -35.6%- were pits and 3 -4.1%- were jar burials (Chart 91). As with pottery, most of the non-pottery objects were found in relation with cist graves.

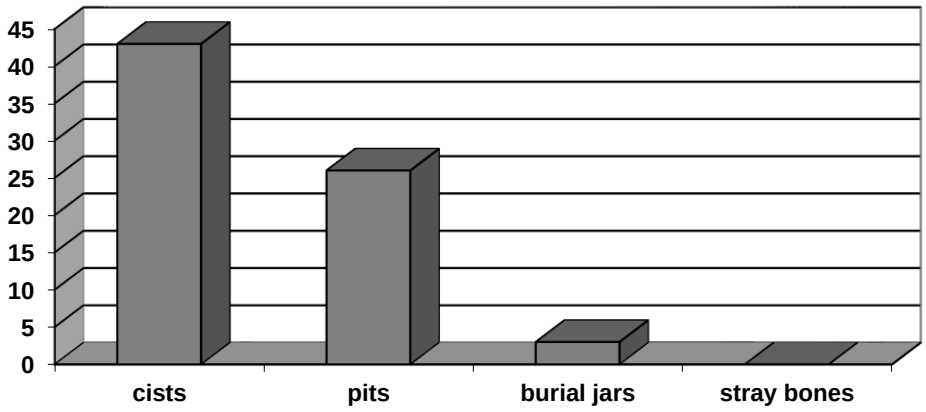

Chart 91: distribution of graves with non-pottery objects (total 73) into grave types

In general, 43% of the cist graves contained non pottery finds. The percentage of pits containing non-pottery objects is 25.7% and of burial jars 37.5% (Chart 92). Thus, cist graves and burial jars were more often associated with finds other than pottery.

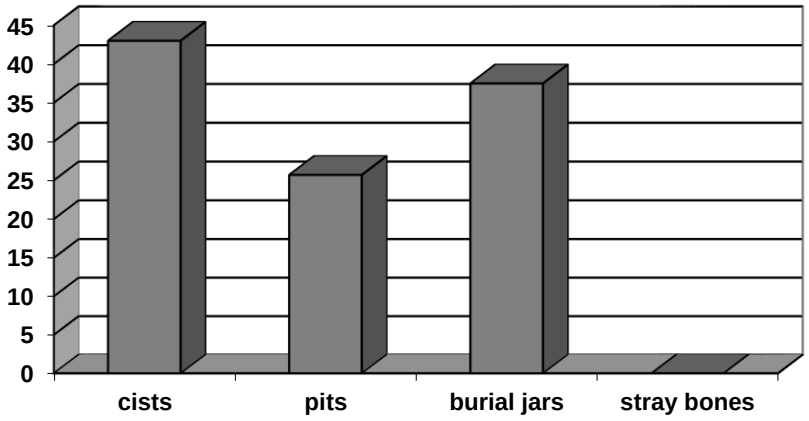

Chart 92: percentage of graves with non-pottery objects in each grave type

The composition of the offerings assemblage is very variable. Every grave is unique regarding the correlation of the objects found in it. Although some find categories are more often associated with each other (e.g. chipped tools-animal bones), no standardisation of the total assemblage of each grave exists (Appendix IV). The lack of standardisation may indicate that the individual rather than any collective identity was emphasised in the burial assemblage.

As with pottery, the distribution of non-pottery finds into the different grave groups is uneven. Both the distribution of finds and the distribution of graves with non-pottery objects show that most of the objects were found in group B (Charts 93, 94). The percentage of graves with finds, on the other hand, exhibits a different pattern; group C had the highest percentage of graves with non-pottery objects followed by groups A and B (Chart 95). These three groups also had the highest percentage of pottery and of imported vessels (see above, Chart 36 and Chart 76).

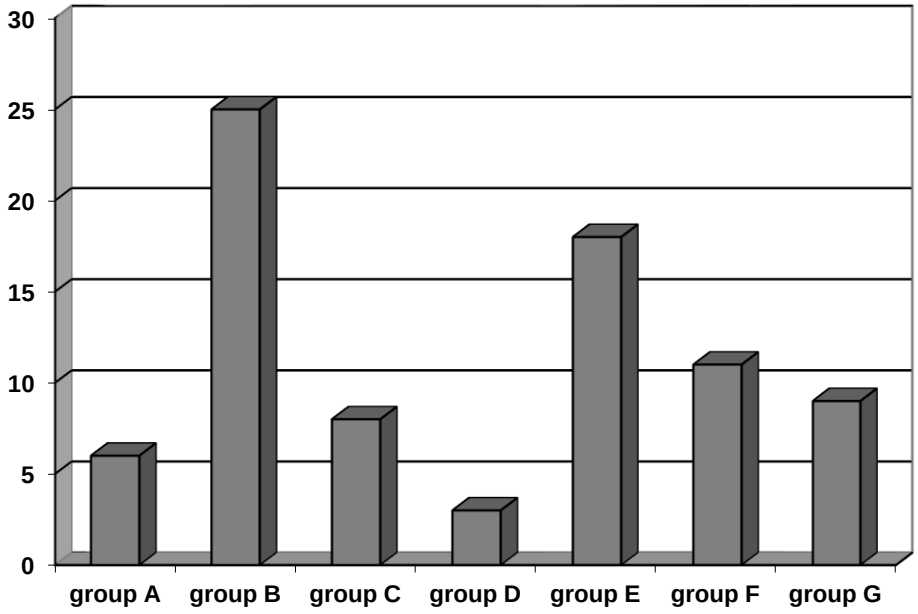

Chart 93: distribution of non-pottery finds in grave groups

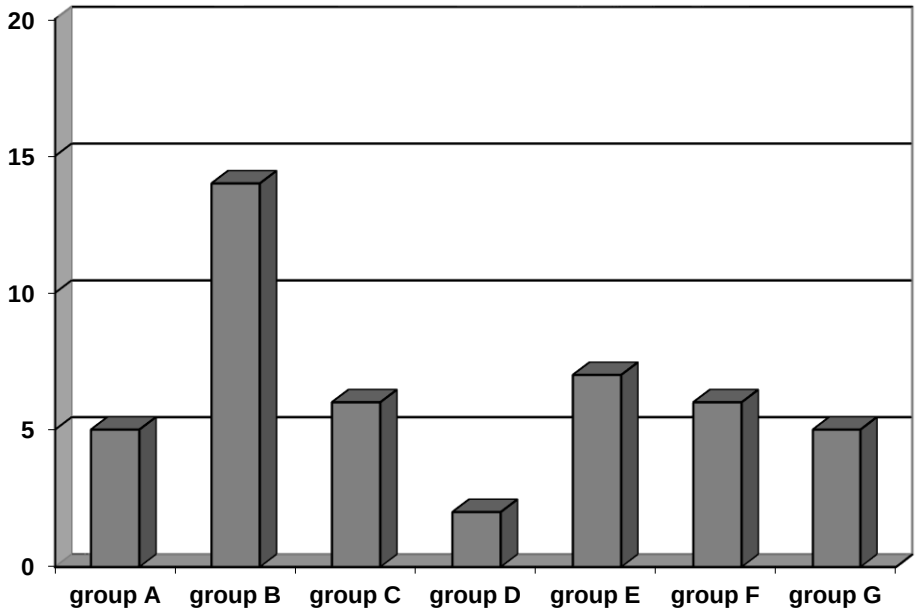

Chart 94: distribution of graves with non-pottery finds in grave groups

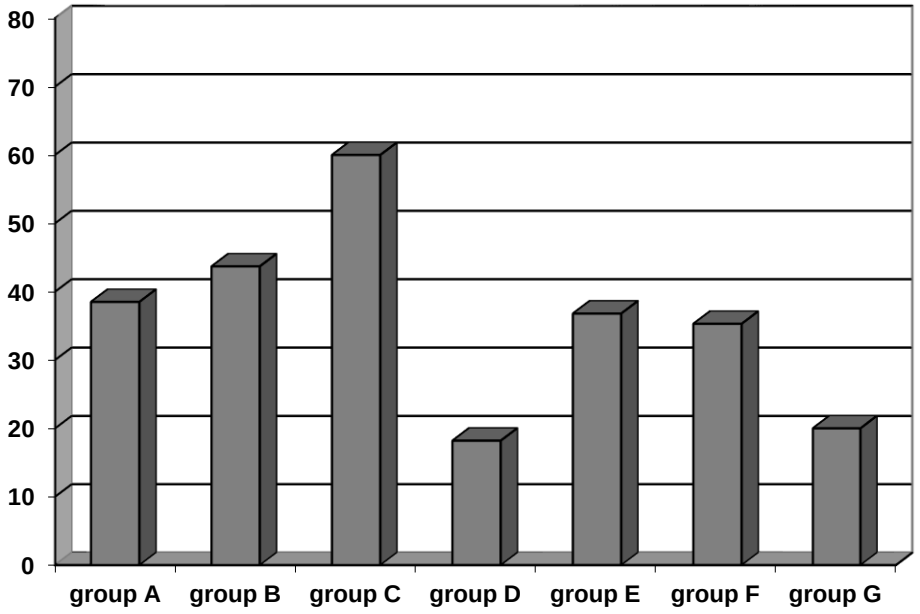

Chart 95: percentage of graves with non-pottery finds in each grave group

Let us now examine each find category separately.

a. Tools

43[78] tools have been found and they were related with 36 graves. However, only two of them (L6.360: bone awl; L6.10: terracotta spool) are referred as offerings, while the remaining are treated as associated finds.

The vast majority of the tools (31) were made of stone. Six tools, all of which were awls, were made of bone. From the remaining, two, a chisel and a rivet, were made of bronze and five, four discs and a polisher, were made of pottery sherds (Chart 96).

[78] This number is actually higher as sometimes there is a reference that blades were found (e.g. DE 27, DE 29) but it not specified how many of them.

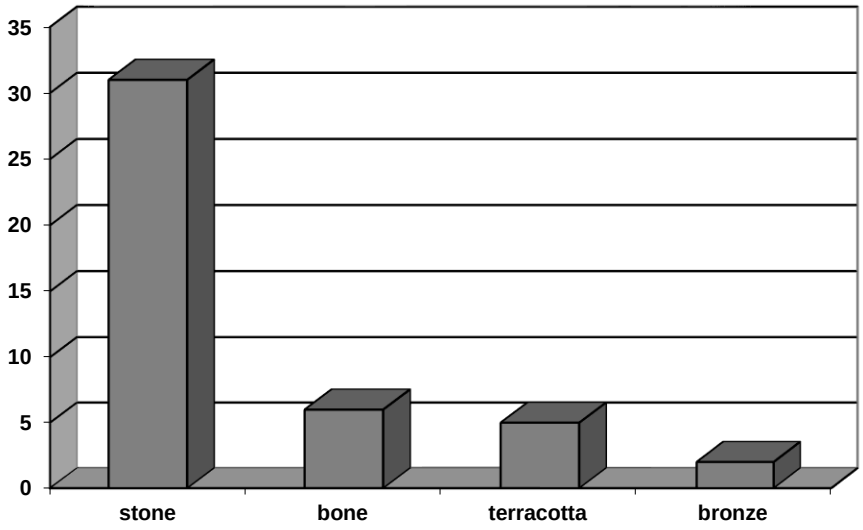

Chart 96: materials used for the construction of tools

Interestingly, all the stone tools found in the graves were treaded as associated finds, as artefacts which had accidentally entered the tomb. Even when a blade was found inside a burial jar (e.g. DE 68), it was not considered as a proper offering.

Although it is generally difficult to distinguish between intentionally deposited and intrusive objects in a settlement context, there is a tendency to regard tools as improper artefacts to be used as burial offerings. However, the distribution of tools in adult and sub-adult graves it not random. One would have expected more tools to have accidentally penetrated sub-adult graves in a cemetery where sub-adult burials predominate. On the contrary, in Lerna most of the tools were found in association with adult graves -28 tools (66.7%) in juvenile and adult graves - and more seldom in sub-adult graves -10 tools (23.8%) in neonate-infant graves.[79] Such a pattern indicates an intentional deposition rather than accidental intrusion, at least in most of the cases.

If we turn to gender, no clear pattern emerges; slightly more tools have been found in male graves -14 tools (33.3%) - than in female graves -12 tools (28.6%). Three tools were found in burials containing both males and females.

The exact position of the tools inside the graves was not systematically recorded or it not systematically reported in the publications. We do not have any information about the position of 17 objects, while four objects it is not clear if they were found in or upon the grave. 13 tools were found in the grave fill but their placement in relation to the

[79] Two tools were found in double or multiple adult and sub-adult burials.

skeleton is unknown. From the remaining, four were placed close to skull and one in the chest area. Finally, three tools were found above or close to graves.

i. Chipped stone tools

More than 28 chipped tools –more than 21 blades, 3 flakes, 3 saws and a core- were associated with equal number of graves. They were usually found single, however, twice more than one blade was found in a grave (DE27, DE29). The vast majority of the chipped tools were made of obsidian. Only exceptionally another stone was used (flint and chalcedony) (Fig. 64).

In addition to tools, four obsidian and two quartz stone pieces have been found. These stones may have been by-products of the chipped stone tool construction or tools not identified as so by the archaeologists. The same holds true for seven graves where obsidian and flint chips were mentioned.

The exact finding position is known only for two chipped tools, a blade and a flake; they were placed close to skull.

Chipped stone tools were found into graves dating from all phases under study. Most of them however, date from the middle phases of the period, namely MH II and MH III (Chart 97).

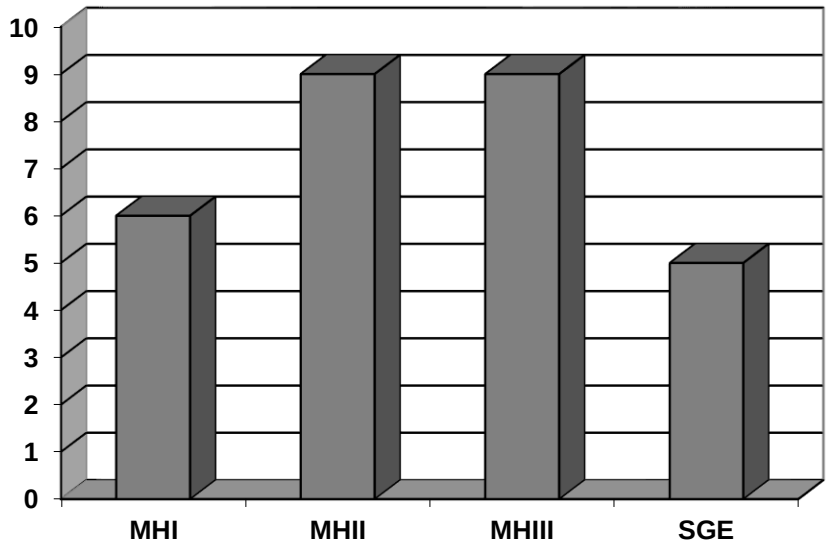

Chart 97: distribution of chipped tools in each period.

Most of the chipped tools were associated with adult burials (Table 82, Chart 98). Less often (7 blades, 1 flake), they were found in association with neonate-infant burials.

Chipped and ground stone tools were the only objects found in OA burials (Chart 98). More than seven chipped tools were correlated with male burials and eight with female burials (Table 82). Thus, no gender differentiation is observed.

Sub-adults	7		
Juveniles	2	**Male:** 0	**Female:** 2
Adults	10	**Male:** 6	**Female:** 4

Table 82: chipped tool distribution in age and sex categories

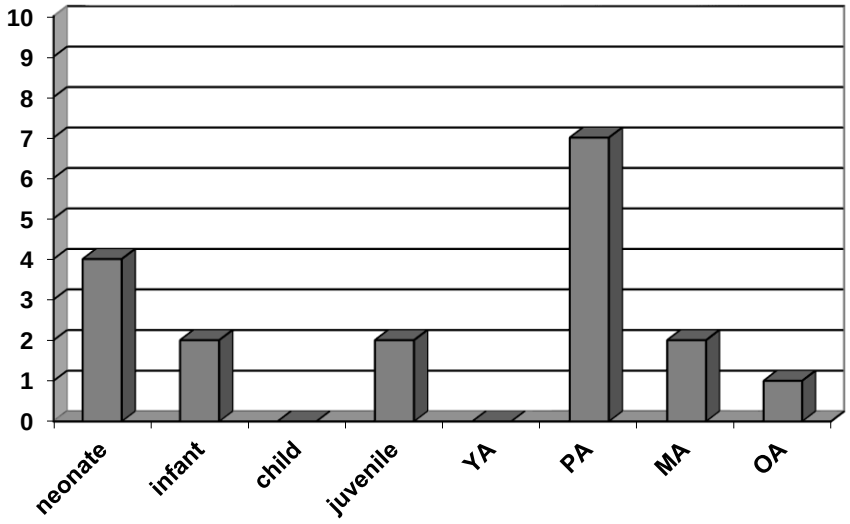

Chart 98: distribution of chipped tools in age categories

Object sets

Chipped tools were often correlated with other chipped stone tools, with animal bones or with pins (Appendix V, Table i.).

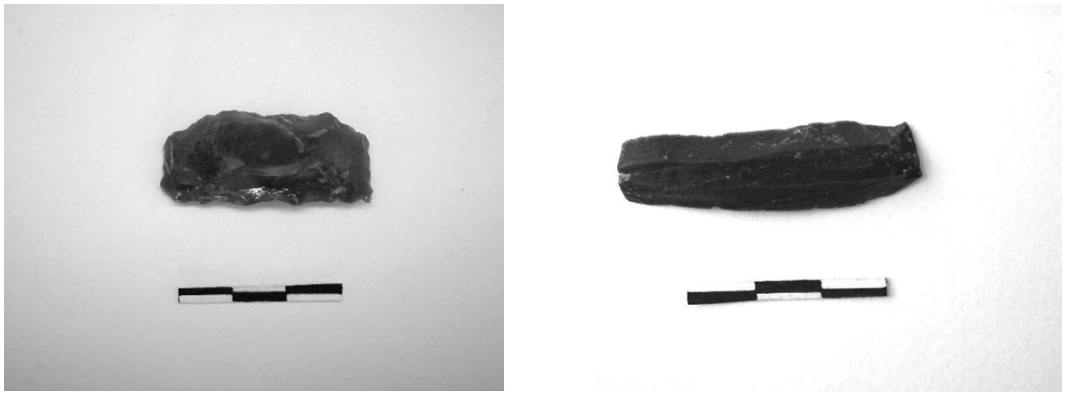

Fig. 64: L4.693: flint saw from grave B14; L5.460: obsidian blade from grave BC4 (photo by the author).

ii. Ground stone tools

Only three ground stone tools have been associated with graves. A hammer (L4.560) was found above the shoulder of an OA female (Fig. 65), a fragment of a millstone (LS.22) was associated with the grave of a YA male and a stone implement (un-inventoried, B19) of unknown use was associated with a neonate burial.

The hammer dates from the MH I period, the stone implement from the MH III period and the millstone from the SGE.

Object sets

No pattern emerges.

Fig. 65: L4.560: stone hammer from grave B14 (photo by the author).

iii. Bone tools

Six bone awls are the only bone tools that have been found in the Lerna cemetery (Fig. 66).[80] They were always found single in the graves. They were usually found broken upon or inside graves but their exact position is unknown. Awls date from the MH I until the MH III period (Chart 99).

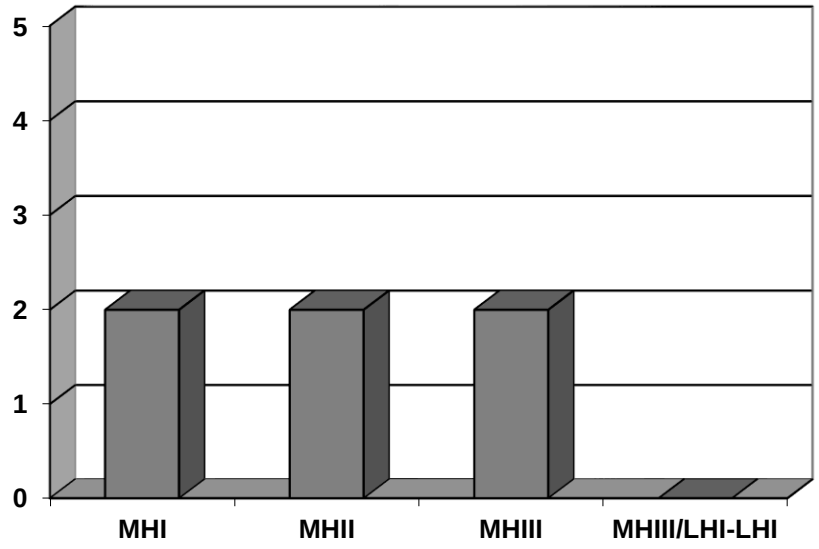

Chart 99: distribution of bone awls in each period.

They were almost always associated with juvenile and adult burials, more males than females. Only once a bone awl was associated with a neonate burial (Table 83).

Sub-adults	1		
Juveniles	1	**Male:** 0	**Female:** 1
Adults	3	**Male:** 3	**Female:** 0

Table 83: bone awl distribution in age and sex categories

Sets of objects

Bone awls were twice combined with ornaments and twice with objects that could have been ornaments (pin, whorl) (Appendix V, Table ii.).

[80] The use of pins is rather ambiguous; they could have been either tools or cloth accessories (see below).

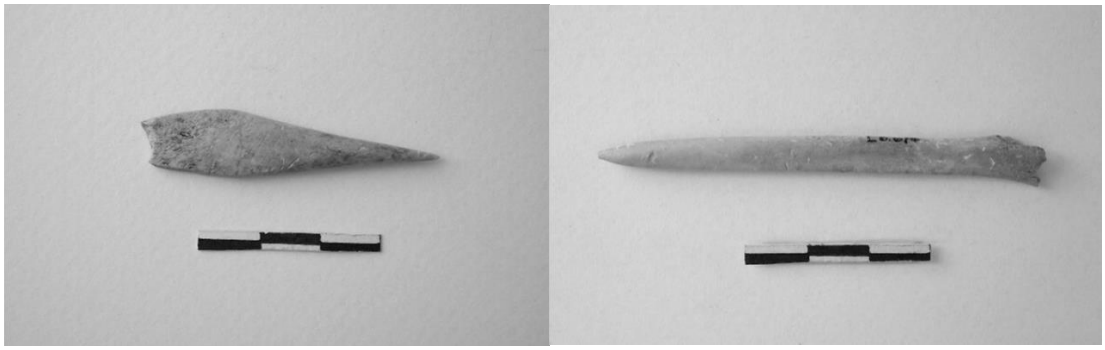

Fig. 66: L3.178: bone awl from grave A1; L6.614: bone awl from grave BD14 (photo by the author).

iv. Terracotta tools

In total, six objects belong to this category (Fig. 67). Terracotta discs are the most common type of terracotta tools (four objects). They were found in four graves. Three of these discs were pierced. Their use, however, is ambiguous; they could have served as weights or lids, while some may have been polishers. All four were made of pottery sherds.

Additionally, a terracotta polisher and a spool were associated with graves. The polisher (L4.176) was a pottery handle in a second use. It was found outside the grave of a PA male dating from the SGE. The spool (L6.10) was deposited by the right shoulder of a PA female burial dating from the MH III period. This was the only terracotta tool treated as real offering.

Terracotta tools date from the MH II period until the end of the period under study (Chart 100).

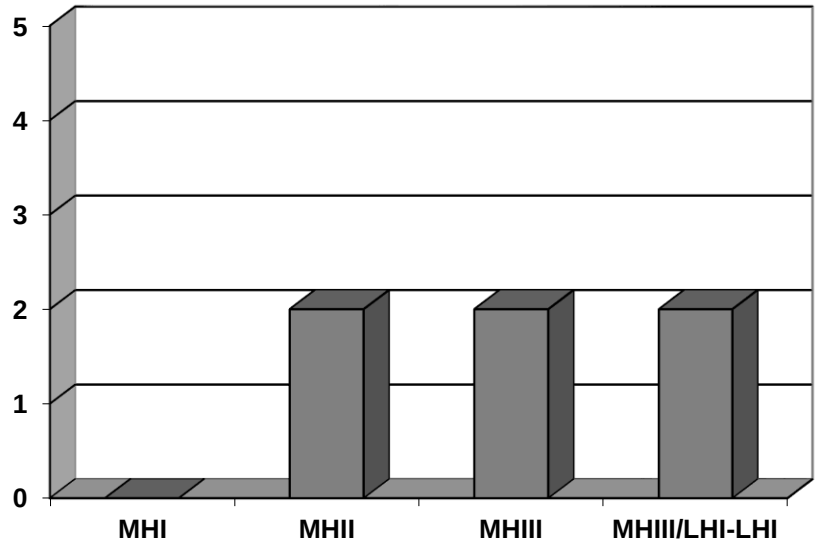

Chart 100: distribution of terracotta tools in each period.

Three of the four discs were found in double and multiple burials (B12, B19, B30); the fourth was found in a single infant grave (DE21). The polisher and the spool were found in PA burials (Table 84).

Sub-adults	1		
Juveniles	0	**Male:** 0	**Female:** 0
Adults	2	**Male:** 1	**Female:** 1

Table 84: terracotta tool distribution in age and sex categories

Sets of objects

Terracotta tools were often combined with ornaments and with bone pins and terracotta whorls, which could also have been ornaments (Appendix V, Table iii.).

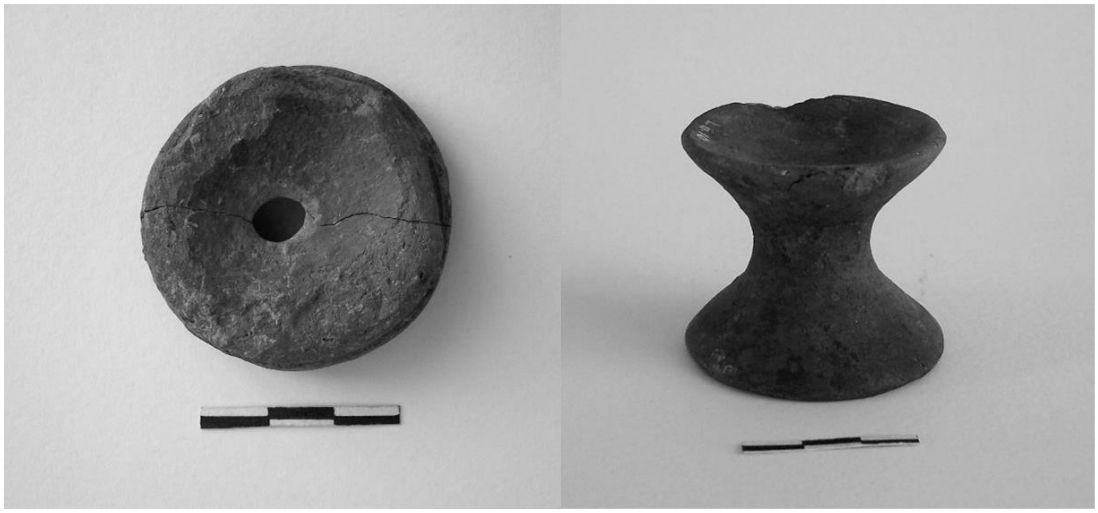

Fig. 67: L6.1492: terracotta pierced disc from grave B19; L6.10: terracotta spool from grave DE60 (photo by the author).

Let me recapitulate on tools; tools were the most common objects found in the graves of different chronological phases. Some age differentiation has been observed in the deposition of tools, as they were mainly found in adult graves. Moreover, chipped and ground stone tools were the only objects found in OA burials.

b. Ornaments

I will now turn to ornaments and examine their correlation with age categories and sex grades.

In total, 29 ornaments have been found in 19 graves. Actually, that number may have been higher if the pins and the whorls, or at least some of them, were used as ornaments (see below, 1.4.3c). In contrast with tools, all but four (3 beads, 1 ring) are considered as offerings.

The vast majority of the ornaments are beads (117) belonging either to necklaces or to bracelets. Additionally, eleven rings (2 silver, 8 bronze, 1 bone) and a piece of silver leaf (L6.322, DE 21, infant), which may have been a hair ornament or a diadem, have been found. Golden ornaments have not been found in Lerna.

Ornaments were usually found in sub-adult burials and more often with females than with males (Table 85). Ornaments were never found in older adult (MA-OA) burials (Chart 101).

Sub-adults	11		
Juveniles	2	**Male:** 0	**Female:** 2
Adults	3	**Male:** 1	**Female:** 1

Table 85: ornament distribution in age and sex categories

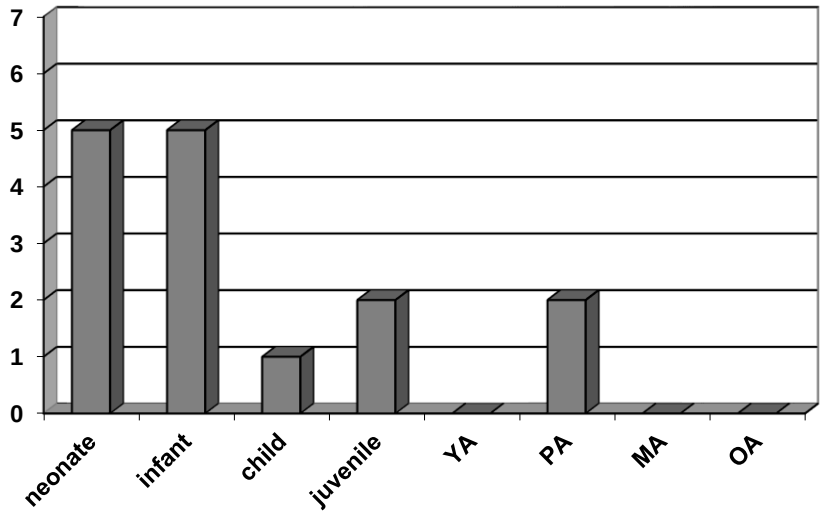

Chart 101: distribution of ornaments in age categories

i. Beads

Most of the jewellery consisted of beads (Fig. 68, 69, 70). In total, 117 beads have been found in 14 graves. Usually many beads were found in the same grave. A single bead was found only three times.

The materials mostly used were paste (36 beads) and different stones (34 beads). In one necklace (L6.415-424) 33 bronze beads were used in addition to some paste beads. In the same necklace, pieces of the bronze wire, which was used to hold the beads, were also preserved. Moreover, eight beads were made of faience, four of bone or shell and one was made of clay. The beads were usually chipped or/and worn indicating that they had been worn before they were deposited in the grave.

Once more, the exact position of most of the beads is unknown. The beads found in grave DE 21 and one of the beads from grave BA 3 were placed near the skull and they probably belonged to necklaces or hair/head ornaments. The remaining beads in grave BA 3 and the beads from grave H 1 were placed near the arms and they were probably bracelets. For the rest no information is available.

Beads were first deposited in the graves during the MH II period and their number steadily increased through time (Charts 102, 103).

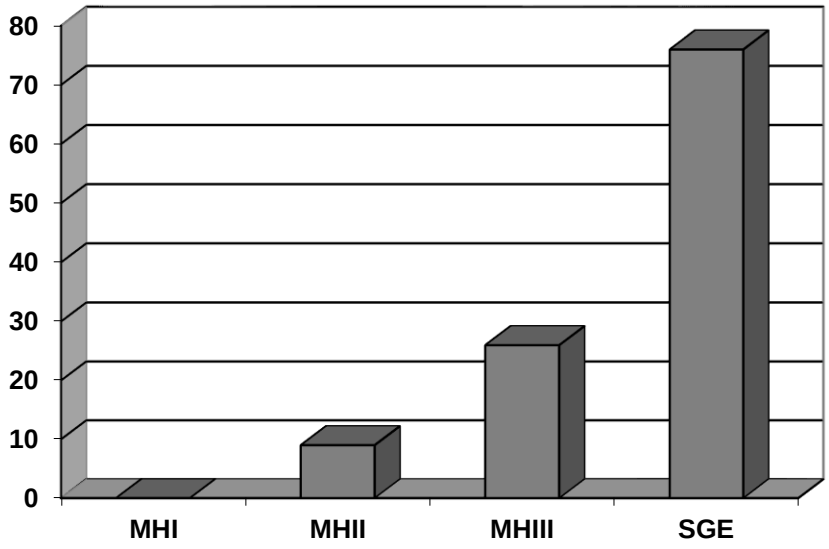

Chart 102: distribution of beads in each period.

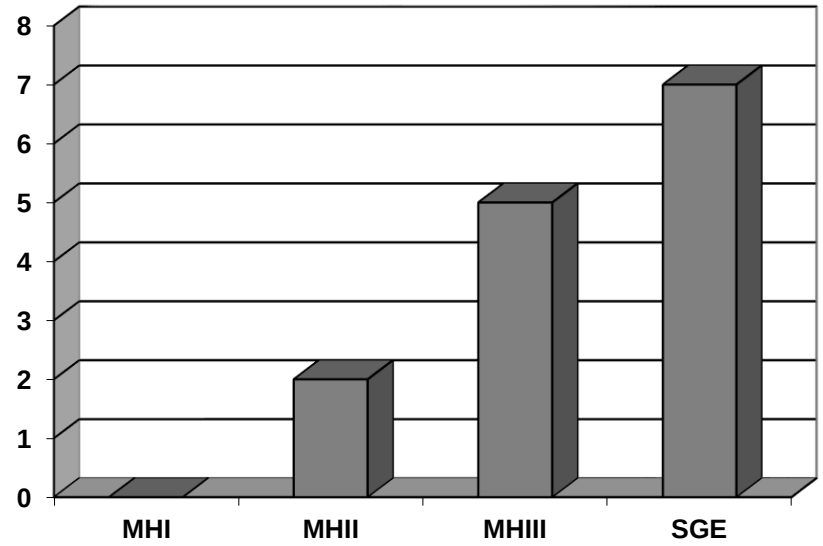

Chart 103: distribution of graves with beads in each period.

As with the other ornaments, beads were primarily found in sub-adult burials, neonates and infants (Table 86, Chart 104). In two graves (DC 3, DC 4) only few skeletal remains were preserved. The archaeologists judging from these skeletal remains and from the size of the graves suggested that the occupants should have been children.

Sub-adults	8		
Juveniles	2	**Male:** 0	**Female:** 2
Adults	2	**Male:** 1	**Female:** -

Table 86: bead distribution in age and sex categories

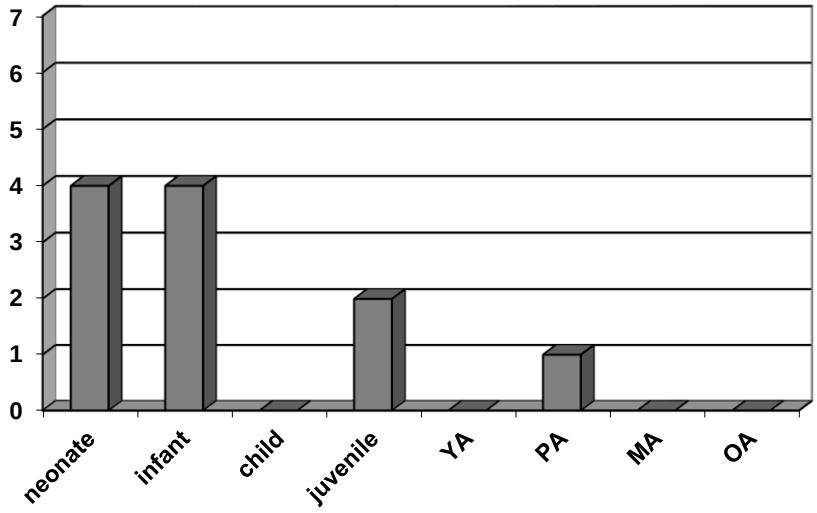

Chart 104: distribution of beads in age categories

Object sets

The beads were often combined with bronze and silver ornaments and/ or shells (Appendix V, Table iv.).

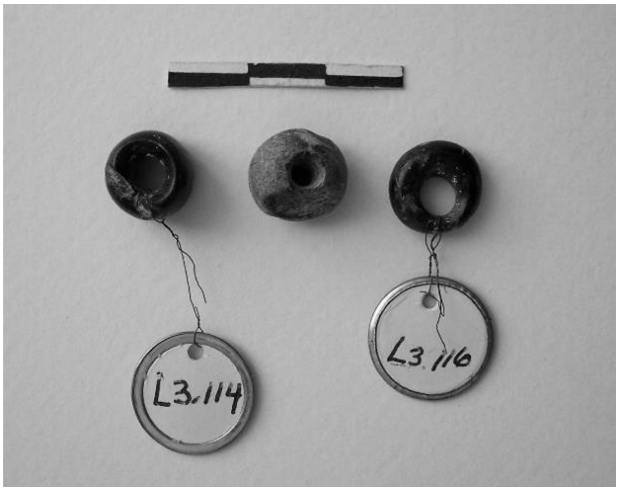

Fig. 68: L3.114-6: stone beads from grave H1 (photo by the author).

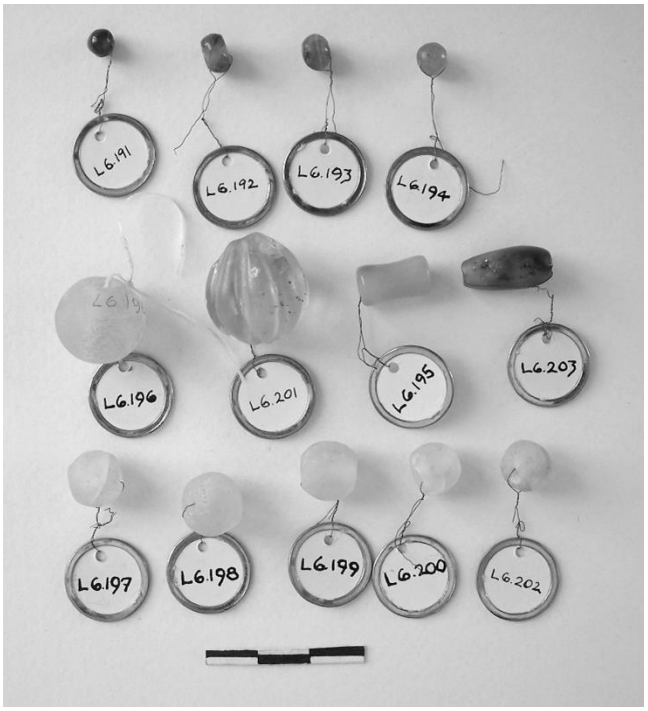

Fig. 69: L6.191-6.203: stone beads from grave DC4 (photo by the author).

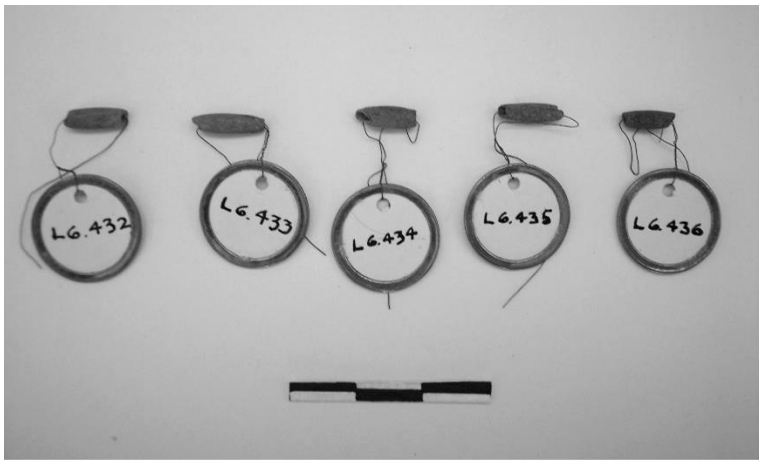

Fig.70: L6.432-6: faience beads from grave BE19 (photo by the author).

ii. Rings

Eleven rings were found in eight graves (Fig. 71, 72). In five graves a single ring was found. The rings were usually made of bronze. However, silver was used twice (for a pair of rings, BE 19, multiple burial) and bone once. The single bronze rings could have been either ear or hair rings, while the bone ring could have been a bracelet. The three pairs of rings, on the other hand, are better interpreted as earrings. Only the bone ring,

from which only a piece was preserved, is treated as associate find. All the other rings are considered as offerings.

Four rings were found near the skulls of the skeletons. The exact position of the remaining rings in relation to the skeletons is unknown.

Rings were first deposited in graves during the MH II period. Most of them date from the middle phases of the period under study (Chart 105).

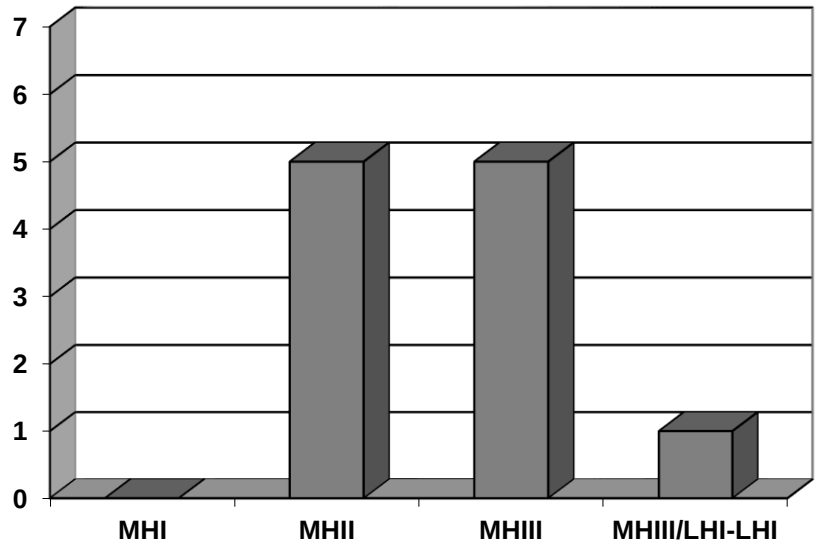

Chart 105: distribution of rings in each period.

These ornaments as well were primarily found in sub-adult burials (Table 87, Chart 106). The only single adult burial where a ring was found was female.

Sub-adults	6		
Juveniles	0	**Male:** 0	**Female:** 0
Adults	1	**Male:** 0	**Female:** 1

Table 87: ring distribution in age and sex categories

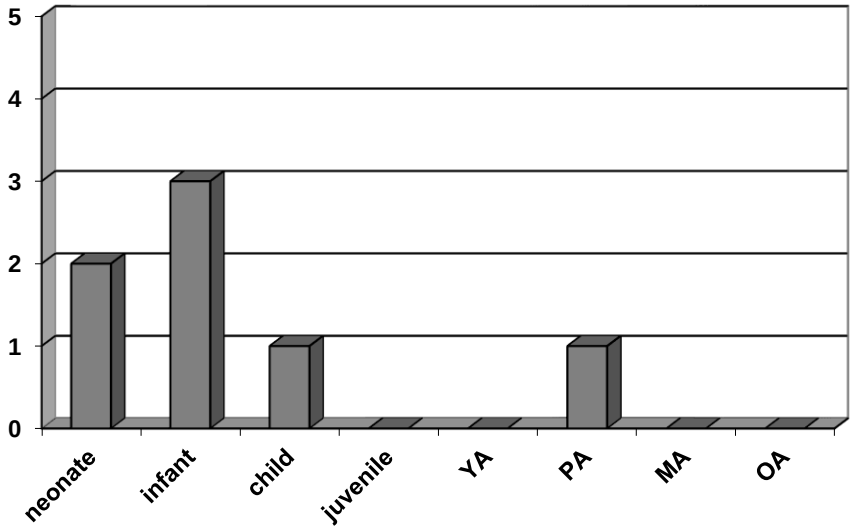

Chart 106: distribution of beads in age categories

Object sets

Rings were sometimes found together with beads (Appendix V, Table v.).

Fig. 71: L6.446: bronze ring from grave DE10 (photo by the author).

Fig. 72: L6.287-8: 2 bronze rings from grave DE42 (photo by the author).

Let me summarize my observation on ornaments; ornaments were first deposited in the graves during the MH II period. They were mostly found in sub-adult burials and only occasionally in adults no older than PA. Thus age differentiation in the use of ornaments has been observed. Some hints of gender differentiation were noted, but the number of adult burials containing ornaments is too small to allow safe conclusions.

c. Pins and whorls

In this category objects are included that could have been used either as tools or as ornaments.

i. Pins

Pins could have been either tools, used to penetrate soft materials, or cloth accessories, used to hold garments in place.

At Lerna 12 pins and a bodkin have been found in association with graves (Fig. 73, 74). Only once (DE27) two pins were found together. The remaining was found single in the graves. Eight pins were made of bone and four of bronze. The bodkin was also made of bronze. Two of the bone pins were decorated (L6.357, L6.706) in the head. The remaining was simple.

Half of the pins were found broken and incomplete. They were found inside or upon graves but their exact position is unknown. Only two pins, one bronze (L5.837) and one bone (L6.357), and the bronze bodkin (L5.830) are treated as real offerings.

Pins were first found in MH II graves and there is a steady increase of their number through time. Moreover, all the bronze pins and the bronze bodkin date from the late phases (Chart 107). This pattern fits well with the pattern obtained from ornaments.

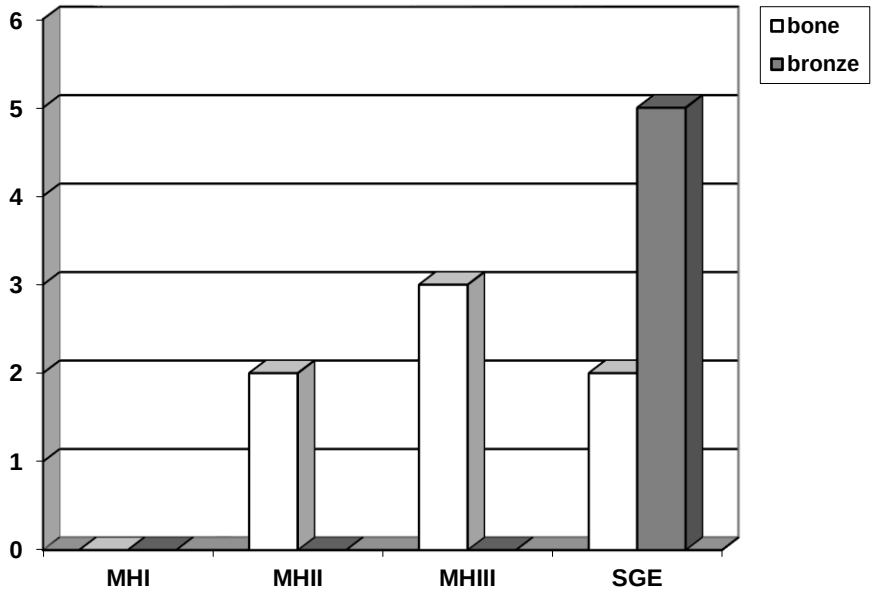

Chart 107: distribution of pins in each period.

Pins were associated with more sub-adults, mainly neonates, than juvenile and adult burials. As with ornaments, the adults were no older than PA. Interestingly, they were never associated with male burials (Table 88, Chart 108).

Sub-adults	4		
Juveniles	1	**Male:** 0	**Female:** 1
Adults	1	**Male:** 0	**Female:** 1

Table 88: pin distribution in age and sex categories

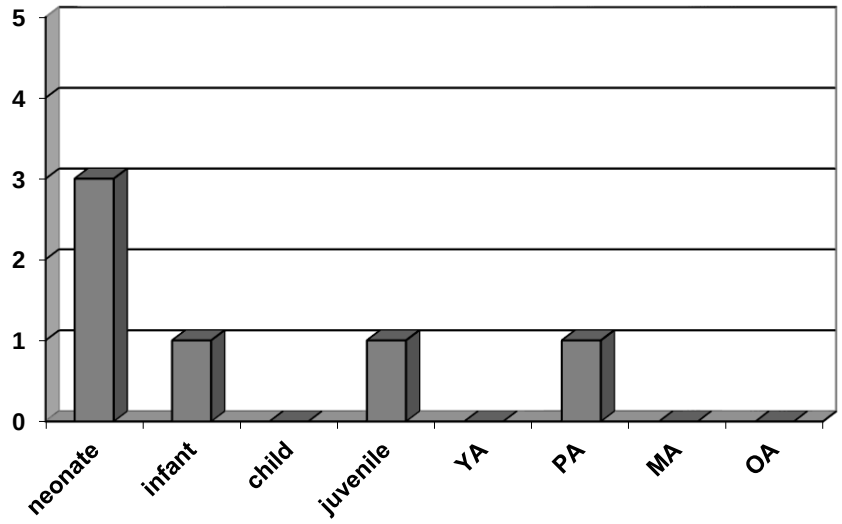

Chart 108: distribution of pins in age categories

Sets of objects

Pins were usually correlated with bone, bronze and/or stone tools (Appendix V, Table vi.).

Fig. 73: L6.357: bone pin from grave BE30 (photo by the author).

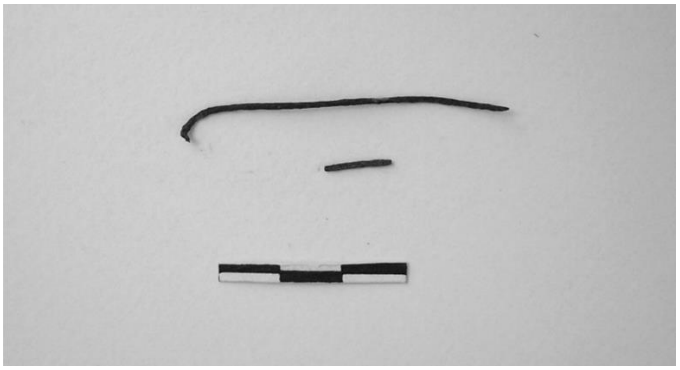

Fig. 74: L5.837: bronze pin from grave BC3 (photo by the author).

ii. Whorls

The use of terracotta whorls is ambiguous. They could have been used as spindle whorls, in which case they are better described as tools or they could have been cloth accessories, either buttons or pin heads.

12 terracotta whorls have been found in association with graves (Fig. 75). Whorls were always found single in the graves. Most of them (eight) are treated as real offerings. They were chipped or worn but they were not broken.

Four whorls were found in the shoulder-neck area of the skeleton indicating their use as buttons or as heads of wooden pins, used to hold a kind of garment (Banks 1967, 544-5). One whorl was found at a skeletons elbow, while two were found above the grave. The exact position of the remaining four is unknown.

Whorls were first deposited into graves during the MH II period and their distribution is even from then onwards (Chart 109).

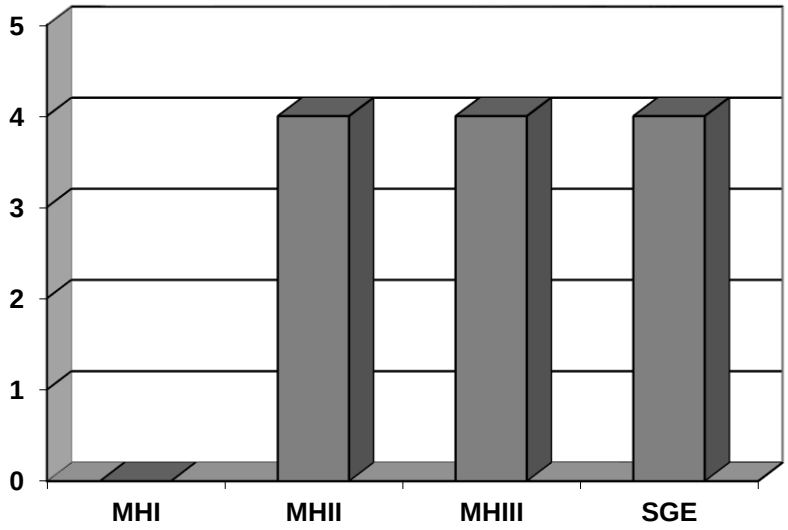

Chart 109: distribution of whorls in each period.

In contrast with ornaments and pins, whorls were more usually found in adult graves (6 whorls). Interestingly, whorls were never found in neonate burials. Moreover, they were more often found in female than in male burials (4 whorls) (Table 89, Chart 110). However, no clear age or gender differentiation existed.

Sub-adults	3		
Juveniles	1	**Male:** 0	**Female:** 1
Adults	6	**Male:** 2	**Female:** 3

Table 89: whorl distribution in age and sex categories

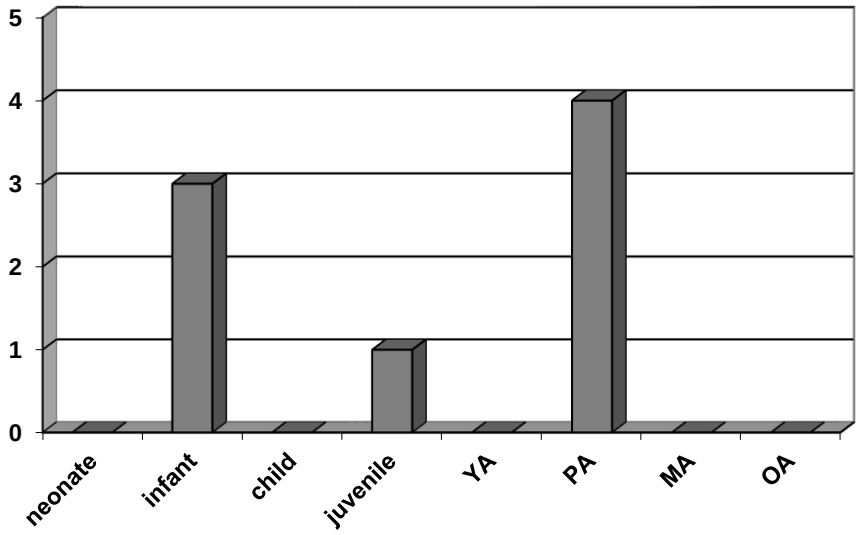

Chart 110: distribution of whorls in age categories

Sets of objects

Terracotta whorls were sometimes associated with bone and stone tools (Appendix V, Table vii.).

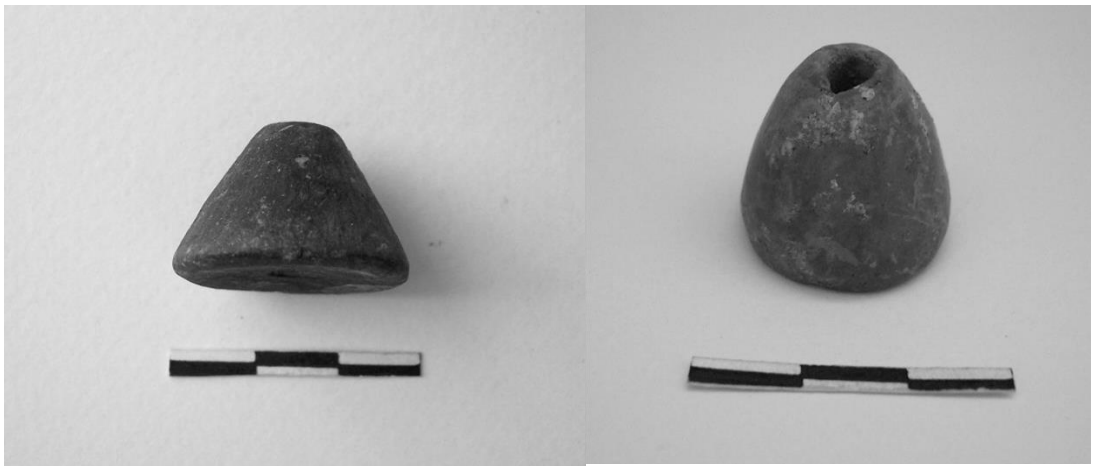

Fig. 75: L6.52: terracotta whorl from grave DE22; L4.120: terracotta whorl from grave D15 (photo by the author).

To conclude, the patterns observed from the distribution of pins fit well with those of ornaments. They were first deposited in the graves during the MH II period, they were mostly found with sub-adults, and occasionally with female adults no older than PA.

Whorls on the other hand, were more often associated with juvenile-adult graves, but clear age or gender differentiation was not observed. They were probably not pin-heads, as they do not correlate with pins in the graves.

d. Weapons

Only few objects that can be characterized as weapons have been found in Lerna cemetery (Table 90). These objects are better described as simple weapons used for hunting rather than for fighting. Those weapons were always found single in the graves.

Grave No	Catalogue No	Category	Material	Date
J 4B	L6.314	tool or weapon: razor blade or knife	bronze	MH II
BD 9	L6.1423	weapon: arrowhead	obsidian	MH II
DE 40	L6.252	weapon: slingshot pellet	stone	MH III
BC 4	L5.459	weapon: arrowhead	obsidian	MH III/LH I
DE 6	L6.1150	weapon: arrowhead	obsidian	SGE

Table 90: Weapons

Most of them (3) were obsidian arrowheads, while a stone slingshot pellet was found upon a grave (Fig. 76). A bronze razor blade or knife, which could have been either a weapon or a tool, has also been found (Fig. 77). The stone weapons were intact (only a small piece of L6.1150 was broken) and the knife was broken.

As it has been already mentioned, the slingshot pellet was found upon the grave. The position in the grave of the arrowheads and of the knife is unknown.

The weapons date from the MH II (1 arrowhead and the knife) until the SGE (Chart 111).

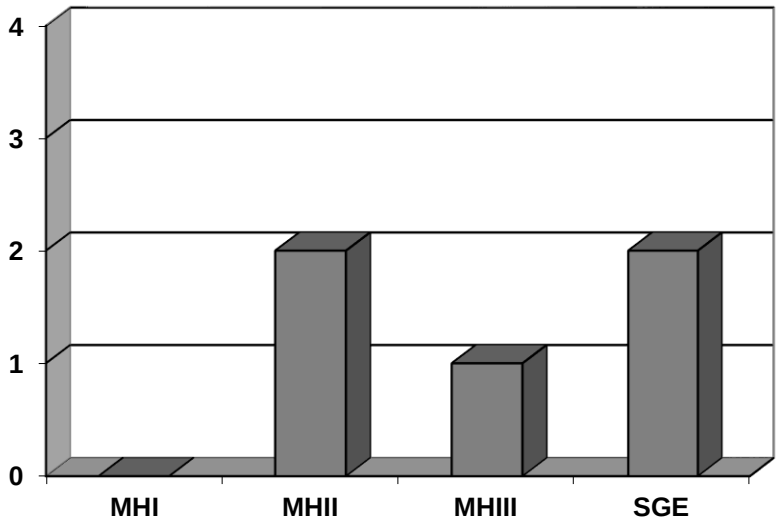

Chart 111: distribution of weapons in each period.

As with the stone tools, stone weapons are also considered as associated finds and not as proper offerings. Only the bronze knife is treated as an offering. However, all but one (L6.1150: arrowhead), the weapons were found in PA-MA male burials, indicating that their presence in these graves may not have been accidental (Table 91, Chart 112).

Sub-adults	1		
Juveniles	0	**Male:** 0	**Female:** 0
Adults	4	**Male:** 4	**Female:** 0

Table 91: weapon distribution in age and sex categories

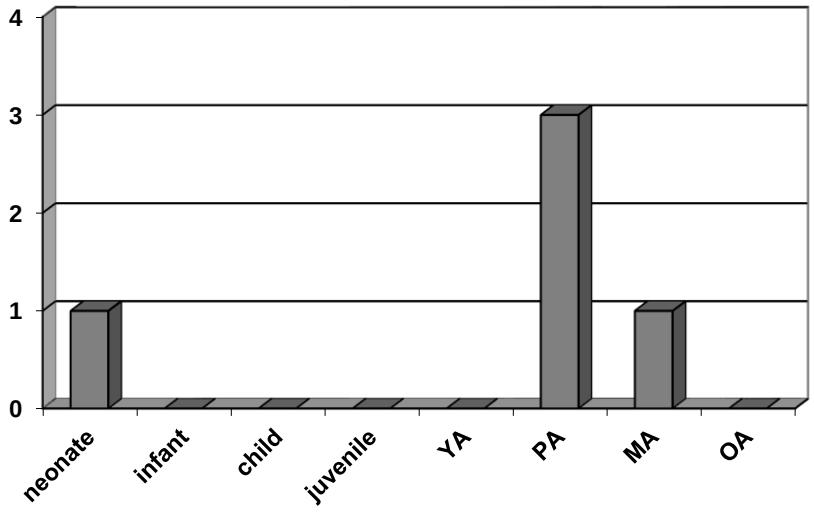

Chart 112: distribution of weapons in age categories

Correlations

The stone weapons were usually correlated with obsidian blades (Appendix V, Table viii.).

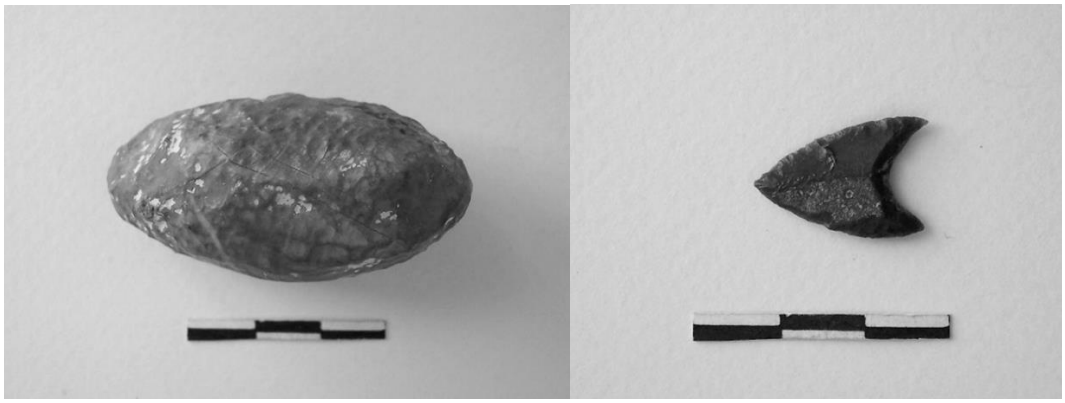

Fig. 76: L6.252: slingshot pellet from grave DE40; L6.1423: obsidian arrowhead from grave BD9 (photo by the author).

Fig. 77: L6.314: bronze razor blade or knife from grave J4B (photo by the author).

e. Miscellaneous objects

Finally, 17 objects found in nine graves are included in this category (Table 92). The use of these objects is either ambiguous or not known and their use does not fall into any of the set categories.

Grave No	Catalogue No	Category	Material	Date
A 10	Un-inventoried	?	turtle shell?	MH III
A 9	L4.779	lid or inlay	bone or ivory	MH III
B 16	Un-inventoried	?	Iron fragments	MH III
BC 3	L5.853	mending clamp	lead	LH I
BC 3	L5.854	mending clamp	lead	LH I
BE 19	L6.325	axe	terracotta	MH III
BE 30	L6.275	pestle?	limestone	MH II
BE 30	L6.276	pestle?	hematite	MH II
D 9	Un-inventoried	?	glass paste fragments	MH III
DE 59	L6.470	?	boar's tusk	MH III
DE 64	Un-inventoried	?	a scrap of bronze	MH I
H 1	L3.112	crystal	topaz or garnet	MH II
H 1	L3.113	crystal	topaz or garnet	MH II
H 1	L3.118	tube	shell	MH II
H 1	L3.119	pendant or inlay?	Oyster shell	MH II
H 1	Un-inventoried	pendant or inlay?	Oyster shell	MH II
J 2	L5.905	sphere	terracotta	MH

Table 92: miscellaneous objects

Terracotta axe (L6.325): it was found in a MH III multiple burial (BE 19). It could have been a votive object, as it has no utilitarian use (Fig. 78).

Pestles? (L6.275-6): they were found together in a MH II multiple burial (BE 30) (Fig. 79). However, they are not identical; L6.275 was made of light colour limestone. It has a standard shape, common in EH, and it was probably used as weight (Rahmstorf 2003). L6.276 is probably natural hematite, not worked. At first, it was suggested that this object was of meteoritic origin. It was probably chosen because of its shape (Banks 1967, 193).

Crystals (L3.112-3): two crystals of topaz or garnet were found together with many beads in a MH II juvenile-female burial (H 1). The two crystals were not pierced. They may have been used to decorate an object made of organic material (Fig. 80).

Pendants or inlays (L3.119- Un-inventoried): they were made of oyster shell. They were also found in grave H 1, together with beads and the two crystals, near the left arm of the skeleton. Probably, they were not pendants but inlays of a wooden box, or ornaments of a cloth, or beads in a bracelet. The same may hold true for the *shell tube* (L3.118) from the same grave although the exact position of it in the grave is not known.

Lid or inlay (L4.779): this object could have been also part of a box's decoration or box's cover. It was found together with the bones of an infant in a grave (A 9) dating from the MH III period.

Mending clamps (L5.853-4): these two lead objects were used to mend broken vessels. They were found in a LH I grave (BC 3), where no skeleton was preserved and their presence is probably accidental.

Sphere (L5.905): the use of this miniature un-perforated terracotta sphere in unknown. It was found in a double burial (J 2) of a male and a female, together with many beads.

The remaining of the miscellaneous objects is very fragmentary to allow any comment.

Fig. 78: L6.325: Terracotta axe from grave BE 19 (photo by the author).

Fig. 79: L6.275-6: stone pestles from grave BE 30 (photo by the author).

Fig. 80: L3.112-3: crystals from grave H 1 (photo by the author).

Let me summarize my observations on non-pottery objects. 1/3 of the graves at Lerna contained some object other than pottery. Most of them were found in cist graves. Stone tools and ornaments were the most common categories deposited in the graves. Golden ornaments or other gold objects are missing and only a couple of silver ornaments have been found. The few weapons were simple hunting implements, while fighting weapons are missing. In general, the composition of the assemblage is variable and standardisation was not observed.

Age differentiation in the deposition of tools, ornaments and pins has been observed, while gender differences were not apparent. Differentiation has also been observed between the grave groups. Most of the graves containing non-pottery objects belong to groups B, C and A. Overall therefore, the picture obtained from pottery was confirmed from the non-pottery objects.

f. Organic remains

Next to non-pottery objects, organic remains of animals, shells or plants have been mentioned in 39 graves. It should be emphasized here, however, that the earth was not systematically sieved and soil samples were not water sieved. Thus animal bones and shells, but especially carbonised seeds must have originally been more.

i. Animal bones

Animal bones were found in 23 graves (Table 93).[81] All of them are treated as associated finds. Cattle, sheep-goats and pigs were the species usually represented. In five graves animal bones from more than one species were found. With the exception of some tortoise bones and a possible shrew skeleton, the remaining bones belong to domesticated species.

No obvious correlation between animal species and/or age and gender was observed. Moreover, no clear spatial pattern emerges.

Grave No	Species	Date
A 2,3,4	pig, sheep or goat	MH II
A 5	cattle	MH III
B 12	pig	MH II
B 21A-B	sheep or goat, cattle	MH II
BA 1	?	MH II
BC 1	pig, cattle	MH III/LH I
BC 4	dog	MH III/LH I
BC 7	tortoise	MH I
BE 7	sheep or goat	LH I
DB 1	pig, sheep or goat, cattle, tortoise	LH I
DC 1	pig	LH I
DC 2	dog	LH I
DE 13	sheep or goat	LH I
DE 28	pig	MH II
DE 29	sheep or goat	MH III

[81] Bones that were retrieved by Sevi Triantaphyllou during the anthropological study and studied by David Reese are not included here.

DE 30	sheep or goat	MH III
DE 35	cattle	MH II
DE 36	shrew' s (?) skeleton	MH II
DE 5	pig	MH III/LH I
DE 60	cattle	MH III
G 2	horse's tooth, pig, cattle	MH I
J 1	sheep or goat	MH
J 2	cattle	MH

Table 93: animal bones

Most of the graves containing animal bones date from the MH II period and SGE[82] (Chart 113).

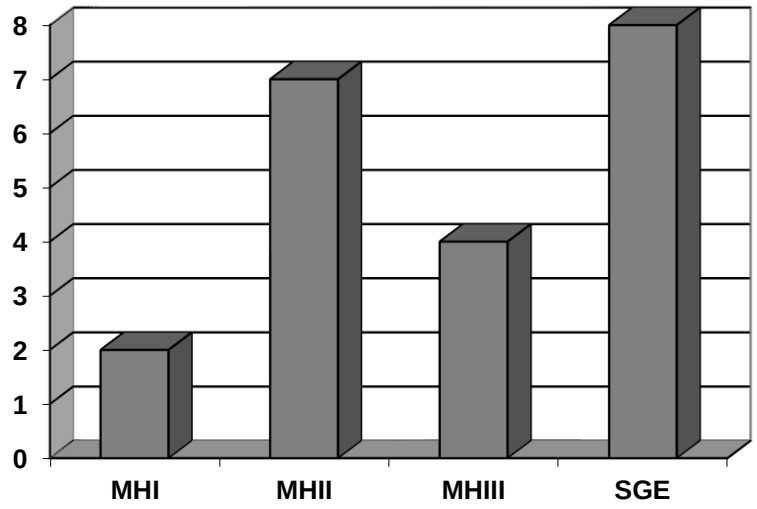

Chart 113: distribution of graves containing animal bones in each period.

Animal bones were more often found in juvenile-adult burials and especially with PA (Table 94, Chart 114). They were missing from OA burials. Gender differentiation was not observed, as they were found in male and female burials.

[82] A large amount of animal bones was also found in the shafts above the two Shafts Graves. M. Lindblom, who will publish the material from the two graves, believes that those bones resulted from mortuary meals (Lindblom 2007).

Sub-adults	8		
Juveniles	2	**Male:** -	**Female:** -
Adults	10	**Male:** 4	**Female:** 6

Table 94: animal bone distribution in age and sex categories

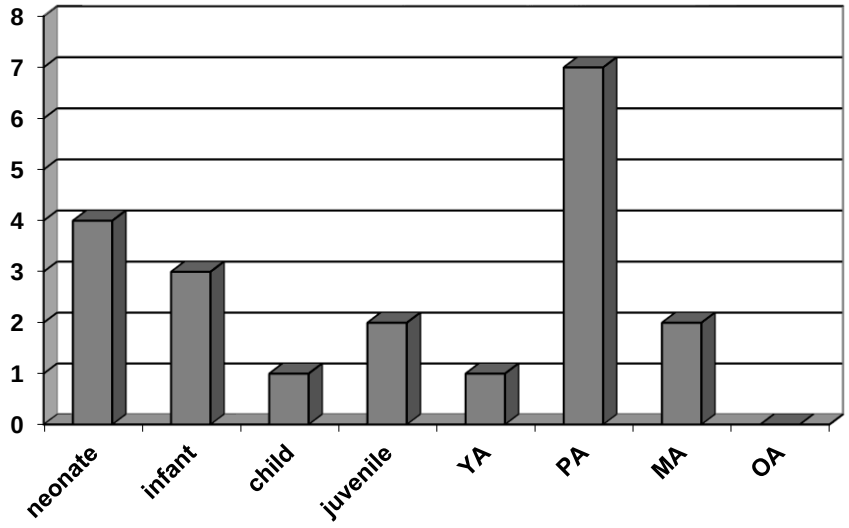

Chart 114: distribution of animal bones in age categories

Correlation of animal bones with other finds

Animal bones were often correlated with stone tools (in 7 graves). The study of cut marks on the animal bones may clarify whether the stone tools were used for cutting/processing meet during the funeral.

ii. Shells

13 graves contained non worked sea shells (Table 96).[83] In four graves a single shell was found, while in the remaining graves more than one shell was collected. In most of the graves shells were considered as associated finds; only twice (H 1, J 4B) they were treated as real offerings.

Although the numbers are too small, there is a tendency for the deposition of more shells in later graves (Chart 115).

[83]Shells that were retrieved by Sevi Triantaphyllou and studied by David Reese are not included here.

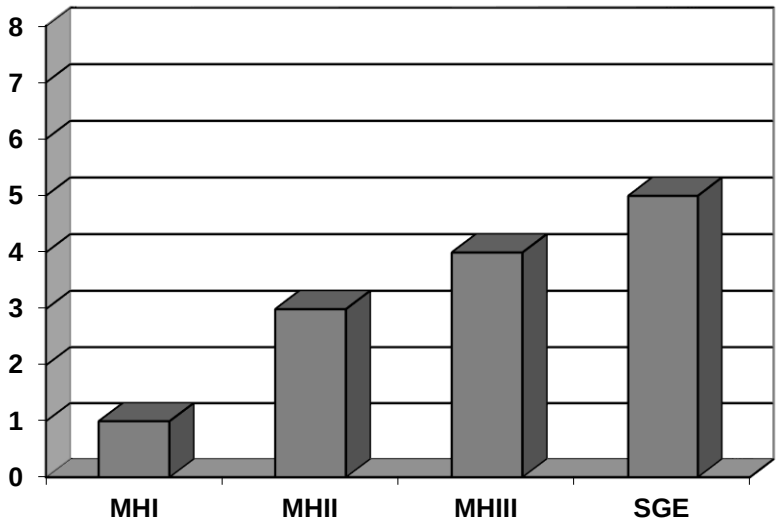

Chart 115: distribution of graves containing shells in each period.

In contrast with animal bones, shells were found in more sub-adult burials, especially infants (Table 95, Chart 116). From the juvenile-adult burials more male than female burials contained shells, but again the numbers are too small.

Sub-adults	7		
Juveniles	1	**Male:** 0	**Female:** 1
Adults	3	**Male:** 3	**Female:** 0

Table 95: shell distribution in age and sex categories

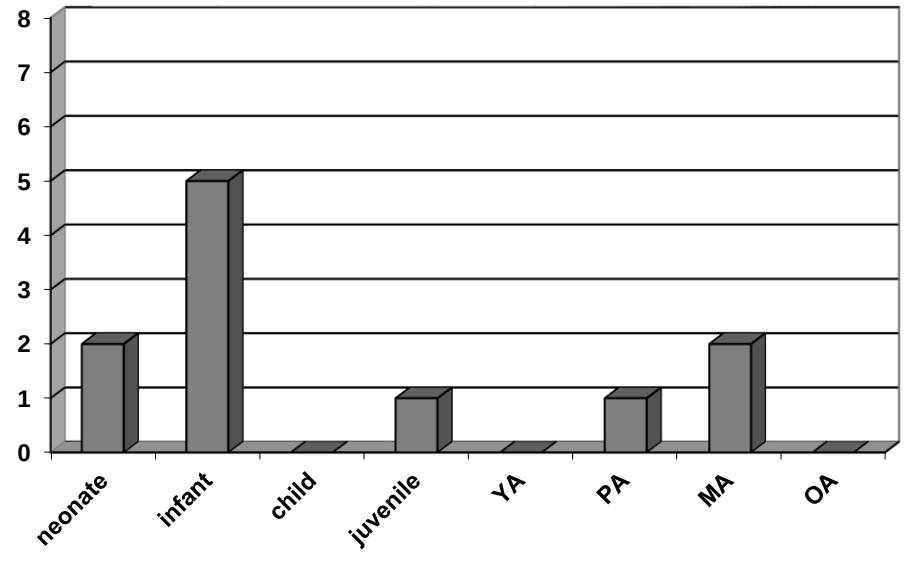

Chart 116: distribution of shells in age categories

Grave No	Species	Date
BB 2	patella	MH I
BC 3	snail	LH I
D 1	cerastordema, arca	MH II
D 14	columbella rustica, conus mediterraneus	MH III
DB 1	ostrea, cardium, murex	LH I
DE 5	2 ostrea	MH III/LH I
DE 10	murex	LH I
DE 21	wing ark	LH I
DE 27	?	MH III
DE 30	oyster	MH III
DE 51	cowry	MH III
H 1	4 talparia cowry, 3 arca Noae, 2 cyprea/ Luria, 1 gerastoderma/ cardium, 1 gastropod	MH II
J 4B	?	MH II

Table 96: burials containing shells

Correlation of shells with other finds

Shells were often correlated with ornaments (5 graves) and/or with stone tools (4 graves).

iii. Charred grains

Finally, charred grains were noticed in four graves (Table 97). These graves date from the MH I until the LH I period and they belonged to three neonate-infants and one MA male. However, the sample it is not representative as the soil was not water-sieved and most of the information is lost.

Grave No	Species	Date
D 20	bean	MH III
DE 21	?	LH I
DE 27	?	MH III
DE 33	wheat	MH I

Table 97: charred grains

To conclude; the presence of organic remains in the graves must have originally been higher, as samples were not systematically collected. This speculation is confirmed by the finding of animal bones and shells among the human bones during the anthropological study. From the existing material we can generally say that the distribution of animal bones does not indicate age or gender differentiation, while the distribution of sea shells reveals some age and gender differences, as sub-adults and males are favoured. In any case, the study of the material pulled out from the skeletons and the comparison with the settlement material is necessary for the evaluation of the organic material.

1.5 MYLOI: INTRODUCTION

A group of nine graves was found at the village of Myloi during a rescue excavation in 1966[84] (Papachristodoulou, 1967, 182; Dietz & Divari-Valakou, 1990; Dietz 1991), while a LH I-II cist grave has been also reported from another property at Myloi (Protonotariou-Deilaki, 1961, 3-4, 6-7). The group of nine graves were found in a restricted area, actually in a trench11m long (N-S) and 4.70-4.75m wide (E-W), which corresponds to the entire excavated area (Fig. 81). Therefore, it has been suggested that the graves were probably part of a larger cemetery the boundaries of which were never reached. The cemetery was situated approximately 400m north of Lerna (Fig. 81) (Dietz & Divari-Valakou 1990, 45). Actually, this is one of the extramural cemeteries of the late phases of Lerna, while a second was possibly located at the area south of the settlement (indicated with number 4 on the plan).

[84] The rescue excavation took place at the groundplot of Olga Manti, on the left side of the road from Argos to Myloi.

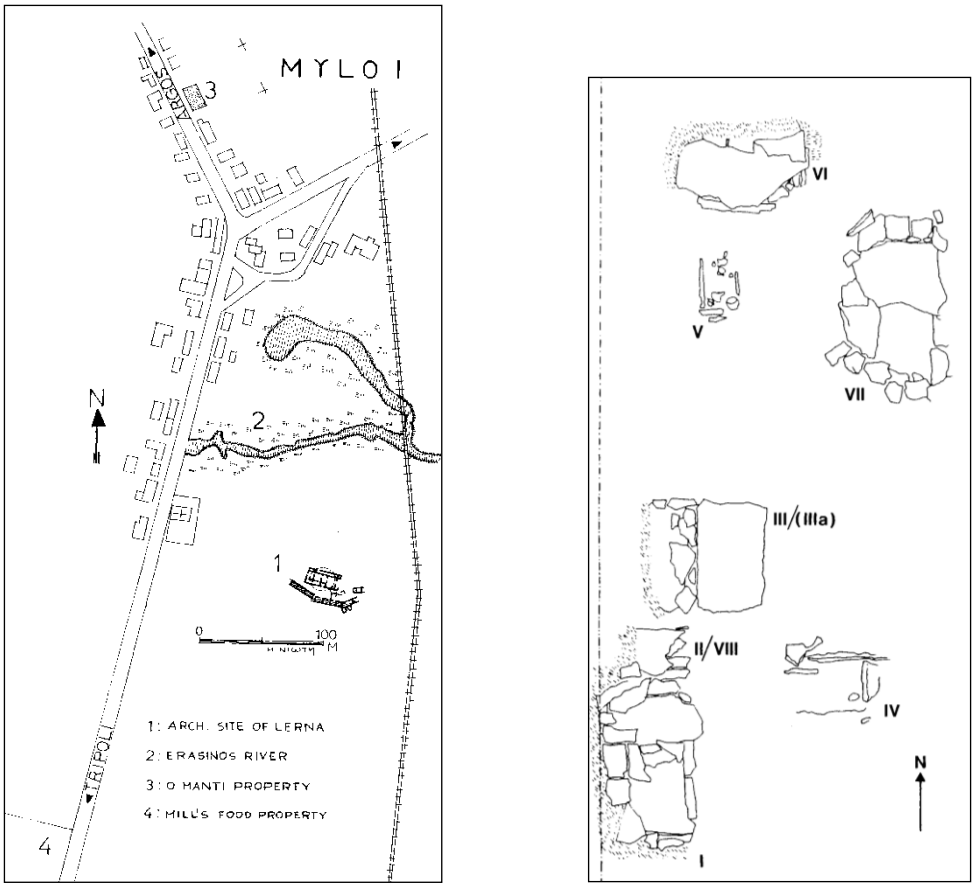

Fig. 81: Location and schematic plan (1:50) of Myloi cemetery-Manti property. The position of the graves in relation to each other, as well as to the cardinal points it is not accurate (from Dietz & Divari-Valakou 1990, Fig. 1, 3).

1.6 MYLOI: THE CEMETERY

1.6.1 Dating

Based on the stratigraphy of the area, on the grave finds and on grave construction, three phases of use of the cemetery have been separated (Dietz & Divari-Valakou 1990, 61); two of them fall into the transitional MH III/LH I period and the third into the LH I period (Table 98).

Later, Dietz (1991) made a more refined dating of the pottery found in the graves (table 98). According to his study, the pottery from the earliest grave V dates from the MH IIIA period, while the vessels found in grave II date from the MH IIIB period. Moreover, he dated more closely the vessels found in the third phase graves III and IV. Thus, the vessel found in grave III dates from the LH IA period and the vessels found in grave IV from the LH IB period.

We see therefore that this area was used for burials only late in the period under study. During the MH III period, extramural cemeteries appeared in other MH Argive sites as well. For example, the cemetery of Barbouna in Asine and in Prosymna were established, while the earlier cemeteries of East Cemetery in Asine and of Argos were significantly expanded. At the same time, however, burials were still placed in the settlement in Lerna and in other sites (e.g. Kastraki in Asine, Aspis in Argos).

Grave No	Phase	First dating	Refined dating
I	2nd?	MH III/LH I	---
II	2nd	MH III/LH I	MH IIIB
III	3rd	LH I	LH IA
IIIa	3rd or later	LH I	---
IV	3rd	LH I	LH IB
V	1st	MH III/LH I	MH IIIA
VI	2nd	MH III/LH I	---
VII	3rd	LH I	---
VIII	2nd	MH III/LH I	---

Table 98: grave dating

1.6.2 Grave location

As we have seen above, the Myloi cemetery was situated approximately 400m north of the site of Lerna. As far as we know, this was a previously uninhabited area used exclusively for burials. The nine graves thus were part of a typical extramural extended cemetery. During the MH III-LH I period typical extramural cemeteries were in use in other Argive sites as well (e.g. Asine, Argos), alongside burials in the settlements. In Lerna by the LH I period all burials were placed upon the abandoned part of the settlement, while contemporary houses have not been found.[85]

The possibility cannot be excluded though that more extramural cemeteries existed around Lerna. As pointed out above, the LH I grave found, approximately 300m south of Lerna (Fig. 81, No 4), may indicate the presence of another extramural burial ground.

1.6.3 Spatial organization

Only some tentative remarks can be made on the spatial organization of the cemetery, as only a part of it has been excavated and the boundaries of the grave group were not reached.

[85] Some LH I stray walls were preserved but the upper layers are eroded (see chapter 1.2.3).

a. Grave orientation

Although grave orientation was not very precisely recorded for all graves and their placement on the plan it is not accurate[86] (Dietz & Divari-Valakou, 61), we can tentatively observe that they were all roughly orientated towards the cardinal points. The same was observed for the MH III/LH I-LH I graves at Lerna. In more details, the earlier graves at Myloi were more frequently orientated along the N-S axis, while the later graves were orientated along the E-W axis (Chart 117). Again, the restricted excavated area does not allow more general conclusions regarding cemetery plan.

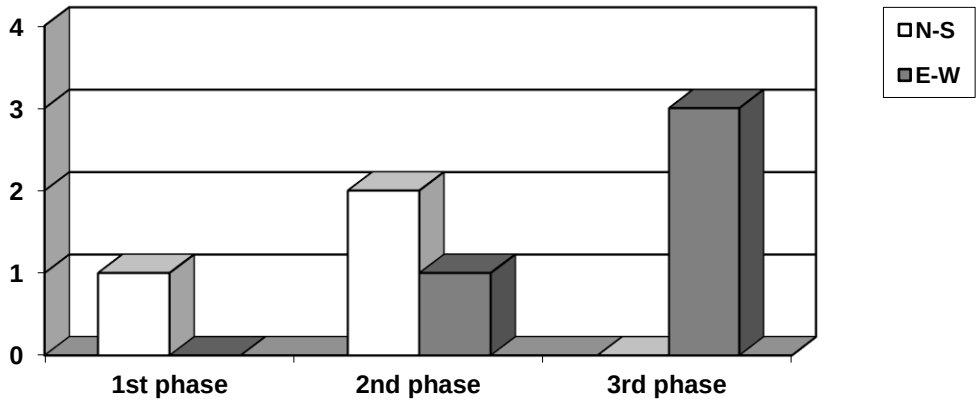

Chart 117: grave orientation in each burial phase

b. Burial groups

Based on the plan (Fig. 81) the graves might have been part of two separate, one at the SW part of excavated area (graves I, II, III, IIIa, IV, VIII) and one at the N part (graves V, VI, VII). However, they will all be treated here as one group because of the small size of the sample, the restricted excavated area and the lack of reference to other features/constructions e.g. houses, enclosure wall. Once again, it should be stressed that the boundaries of the group were not reached during the rescue excavation.

[86] Only a schematic plan is given.

1.7 MYLOI: GRAVE ANALYSIS

Having discussed the general characteristics of the cemetery location and spatial organization, let me know analyse the available information about the skeletal material and the grave types.

1.7.1 The skeletons

Nine skeletons have been recorded from eight graves at Myloi. Bones have not been recorded from grave II, which was disturbed and excavated from the side (Dietz & Divari-Valakou 1990, 48). Those skeletons however, have never been examined by an anthropologist and it was not possible to locate them in any of the Argos Museum storerooms (2006). Thus, no anthropological study of the bones has ever been carried out.

An attempt was made to estimate the approximate age of the skeletons based on the available photos and on the grave plans. According to photos and plans, five skeletons probably belonged to adults and one might have been sub-adult. For three skeletons it was not possible to estimate their approximate age (Table 99).

We see therefore that the cemetery was probably used primarily for adult burials. The only possibly sub-adult burial dates from the latest phase of the cemetery use and it was placed above the cover slab of grave III.

At the same period sub-adult burials predominate at Lerna, while a stricter spatial differentiation of sub-adults and adults still associated with the settlement area was applied. At the East Cemetery of Asine sub-adult burials were also later than the adult burials. It seems that by this late time age became a more important criterion for the location of a grave.

Grave	**Age**
I	Adult
II	No bones were recorded
III	Adult
IIIa	Sub-adult?
IV	?
V	?
VI	Adult?
VII (1st skeleton, later)	Adult
VII (2nd skeleton, earlier)	?
VIII	Adult?

Table 99: approximate age of the skeletons based on published photos and plans

1.7.2 Grave types and furnishings

The main question to be addressed here is whether different grave types were used in the extramural cemetery and whether differentiation existed between Myloi and Lerna. Once more, the restricted excavation area and the lack of anthropological information make any results tentative. Cists and occasionally pits were used at Myloi.

a. Burial jars: burials inside storage vessels.

Jar burials have not been found at Myloi. At Lerna jar burials date no later than the MH II period. It seems thus that this is an early grave type.

b. Pit graves

One (IIIa), and possibly a second (VIII), pit grave has been found at Myloi. A possibly sub-adult individual was buried in grave IIIa dating from the MH III/LH I period, while an adult was buried in grave VIII, which dates from the LH I period.

However, neither of them is a typical pit. Grave IIIa was placed in the shaft above grave III, approximately 30cm above the west cover slab. The grave was uncovered.

Grave VIII is referred in the publication (Dietz & Divari-Valakou 1990, 60) as a possible pit with a cover of one large slab and possible smaller plates. There is no reference to side slabs, although in the grave plan (Dietz & Divari-Valakou 1990, Fig. 27) two side slabs are indicated at the north side. The grave was found between graves I and III and below grave II and it might have been partly demolished. Grave floor was not found.

We see therefore, that pit graves were exceptional at Myloi. This pattern is indicative not only of the late date of the cemetery but also of the age composition of the burial assemblage. Contemporary pits at Lerna are mainly used for sub-adults.

c. Cist graves

Most of the graves at Myloi were cists (Fig. 82).[87] Four of them were made of vertically placed slabs (I, III, IV, V) and two were made with rows of horizontally placed slabs (VI, VII). The two last graves were found close together.

[87] Grave II was of unknown grave type. It was disturbed by modern earthwork and it was excavated from the side.

Two, or three, of the deceased buried in cist graves were adults, while the age of the remaining is unknown.

Four of the six cists were covered with large stone slabs, with smaller ones around the edges of the grave. Another four had pebble floors. Covers and floors were combined in three graves (I, VI, VII), of which two were constructed with rows of stones. No other furnishings and no grave marker has been found in the graves at Myloi.

The size of five cists is given. The inner length of three of them (I, III, VI) was between 1.50m-1.90m and their width between 0.50m-0.85m. Grave V was smaller measuring 0.50m x 0.46m. The age of the deceased found in this grave is unknown. In Lerna however, cists of this size were exclusively used for sub-adults. Finally, grave VII was much larger measuring 2.30m x 1.30m. This grave is larger of any cist found in Lerna. As we will see bellow, this was the richer grave of Myloi cemetery containing four vessels, a bronze knife and a bronze dagger.

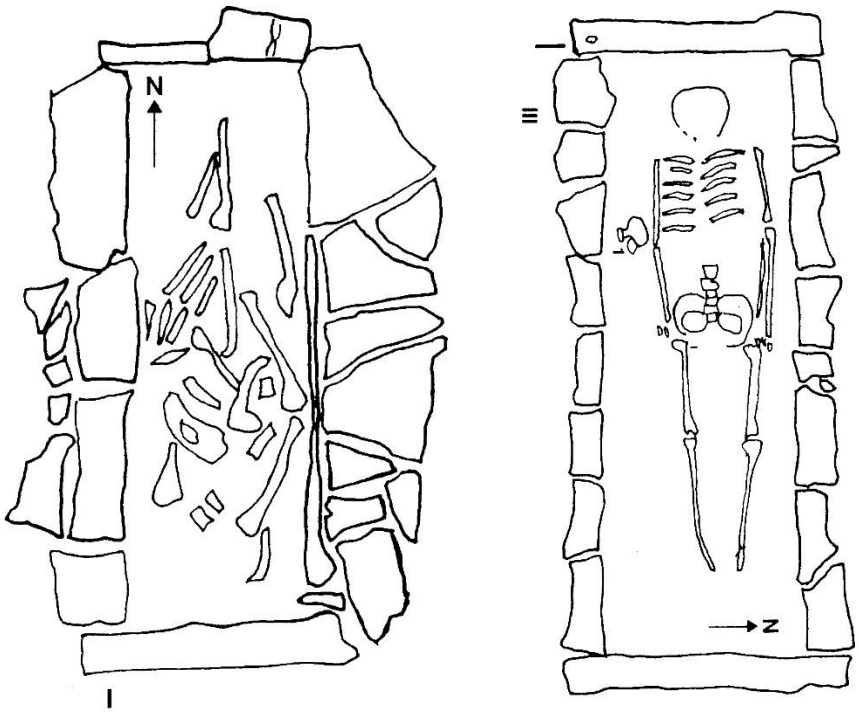

Fig. 82: Cists graves I and III. 1:20 (from Dietz & Divari-Valakou 1990, Fig.5, 8)

d. Shaft graves

Although the cemetery was in use during the latest phase of the period under study, shaft graves have not been found so far. As we have seen, two of them were found in Lerna.

To conclude, well-constructed cists were almost exclusively found in the group of graves excavated at Myloi. Cists predominate also in the other Argive extramural cemeteries (e.g. Argos, Asine, Prosymna). During this period the number of cists increased also at Lerna. At the same time, sub-adults were buried in cists or in pits in the settlement, while most of the adults were buried in cists.

1.7.3 Mode of disposal

a. Single and multiple burials

Single inhumations were the standard mode of disposal at Myloi. Only one double burial has been found: next to a well preserved adult individual in grave VII, parts of a second skeleton of unknown age were found (Dietz & Divari-Valakou, 56). Although not much information is given about the earlier burial, the bones were probably pushed aside as no articulated second skeleton can be seen on the photo. It is thus more likely that this was a typical case of later re-opening of the grave, during the LH I period, in order to bury a second individual, rather than a simultaneous double burial.

Moreover, the probably sub-adult skeleton of grave IIIa was found approximately 30cm above the cover slabs of grave III (Dietz & Divari-Valakou, 50). It is difficult, however, to say whether this burial was placed on purpose or by chance above the earlier grave.

The practice of re-opening a grave in order to bury a new individual is a late practice in other sites and sets in at Lerna during the MH III period. However, it was never widely practiced neither at Myloi nor at Lerna.

b. Primary and secondary treatment

As we have seen, the earlier skeleton in grave VII was probably pushed aside in order to bury a second individual. This was the only case of positively attested secondary treatment of the skeleton at Myloi.

On the other hand, only a skull was found in grave IV, which was, however, disturbed and destroyed, and the same may have hold true for grave IIIa, where the legs of the skeleton were missing.

At Lerna, pushed aside and disturbed skeletons also date mainly from the later part of the MH and LH I periods. At the same site, disarticulated bones from a second individual have been found in many burials during the anthropological study of the skeletons. The occurrence of these bones suggests possible secondary treatment of the

skeletons in which the extra bones belonged. Comparable data are not, however, available from Myloi as the skeletal material is not available for study.

c. Body position and orientation

In the absence of anthropological information concerning the skeletons and of detailed, published information on the burials, only a general description of body position and orientation can be made here.

i. body position

The body position of seven skeletons is known. Three of them were contracted on their backs, three were extended on their backs and one was contracted on side (Table 100). Most of the contracted skeletons were lying on their left side but this information cannot be correlated either with gender or with the exact age of the deceased as these data are not available.

Interestingly, however, a high percentage of the skeletons were found extended on their backs. This body position is indicative of the late dating of the graves. Extended skeletons at Lerna became relatively more frequent towards the end of the MH and the beginning of the LH period but they never predominate.

Lower limbs position	Upper body position	Side of legs	Total
CONTRACTED	**On side: 1**	Left: 1	**4 skeletons**
		Right: 0	
	On back: 3	Left: 2	
		Right: 1	
		Unknown: 0	
	On stomach: 0	Left: 0	
		Right: 0	
		Unknown: 0	
	Unknown: 0		
EXTENDED	**On side: 0**	Left: 0	**3 skeletons**
		Right: 0	
	On back: 3		
	On stomach: 0		
UNKNOWN	**Unknown: 2**		**2 skeletons**
		Total	**9 skeletons**

Table 100: body position

ii. arm position

The extended on back skeletons usually had their arms extended along sides (2). The arm position of the contracted skeletons was not recorded and it was not possible to re-cover it from the excavation photographs and the grave plans.

iii. body orientation

The skulls of the skeletons found in graves orientated roughly towards the N-S axis were more often pointed to the S (3) than to the N (1). The skulls of the skeletons found in graves orientated roughly towards the E-W axis were more often pointed to W (2) than to E (1). These observations, however, cannot be correlated with the age and/or the gender of the deceased.

To conclude, the small size of the sample and the lack of an anthropological study of the skeletal remains allow us only to mark the existence of extended skeletons and of secondary treatment among the assemblage.

1.8 MYLOI: THE FINDS

1.8.1 Introduction

18 objects have been found in seven graves at Myloi. Thus, the majority of the graves contained finds, mainly pottery (14 vessels). All the objects found in the graves are considered as real offerings, deliberately deposited in the graves.

1.8.2 Pottery

14 vessels dating from MH IIIB until the LH IB period have been found in six graves (Fig. 83, 84, 85). Five cist graves and the possible pit contained pottery. Twice (III, IV; cists) a single vessel was found. In the remaining graves more than one vessel was deposited. The biggest amount of pottery, consisted of four vessels, was found in the largest (VII) and in the smaller (V) cist. It seems thus that grave size and quantity of offerings does not correlate.

During the same period at Lerna the amount of pottery deposited in single graves increases. Multiple vessels were found both in adult and in sub-adult graves. Adults however, were more likely to receive more than one vessel.

a. Shapes

Let me now take a closer look at the pottery shapes used as offerings.

i. cups: Four cups have been found in three graves. Two MP kantharoi and one MP cup with loop handle date from the MH III/LH I period, while a lustrous decorated straight-sided cup dates from the LH I period.

Pottery sets

The two kantharoi and the straight-sided cup were placed together with jugs forming pottery sets. Pottery sets set in at Lerna during the same period.

ii. jugs: Seven jugs were placed in six graves. That means that jugs were present in all graves containing pottery. They were the most usual pottery shape used as an offering

at Myloi. Three MP jugs date from the MH IIIB and the MH III/LH I period, while the remaining five, of various fabrics and decoration styles, date from the LH I period. At Lerna the quantity of jugs also increased during the late phases.

Pottery sets

As mentioned above, jugs were often placed together with cups in the graves.

iii. jars: One AM jar (amphoriskos) has been found at Myloi. The jar dates from the MH III/LH I period.

Pottery sets

The jar was placed together with a kantharos, with a cup with loop handle and with a jug.

iv. goblet: One GM goblet, which dates from the MH IIIB, period has been found at Myloi.

Pottery sets

The goblet was found together with a jug.

We see therefore that the pottery repertoire at Myloi is restricted, consisting almost exclusively of jugs and cups, and came in sets. During the LH I period at Lerna, the pottery assemblage found in the graves became more variable, as new shapes were introduced, though pottery sets are found there as well. Although the small sample size at Myloi makes chance for variation statistically smaller, it may tentatively be suggested that stricter rules applied in the extramural cemetery.

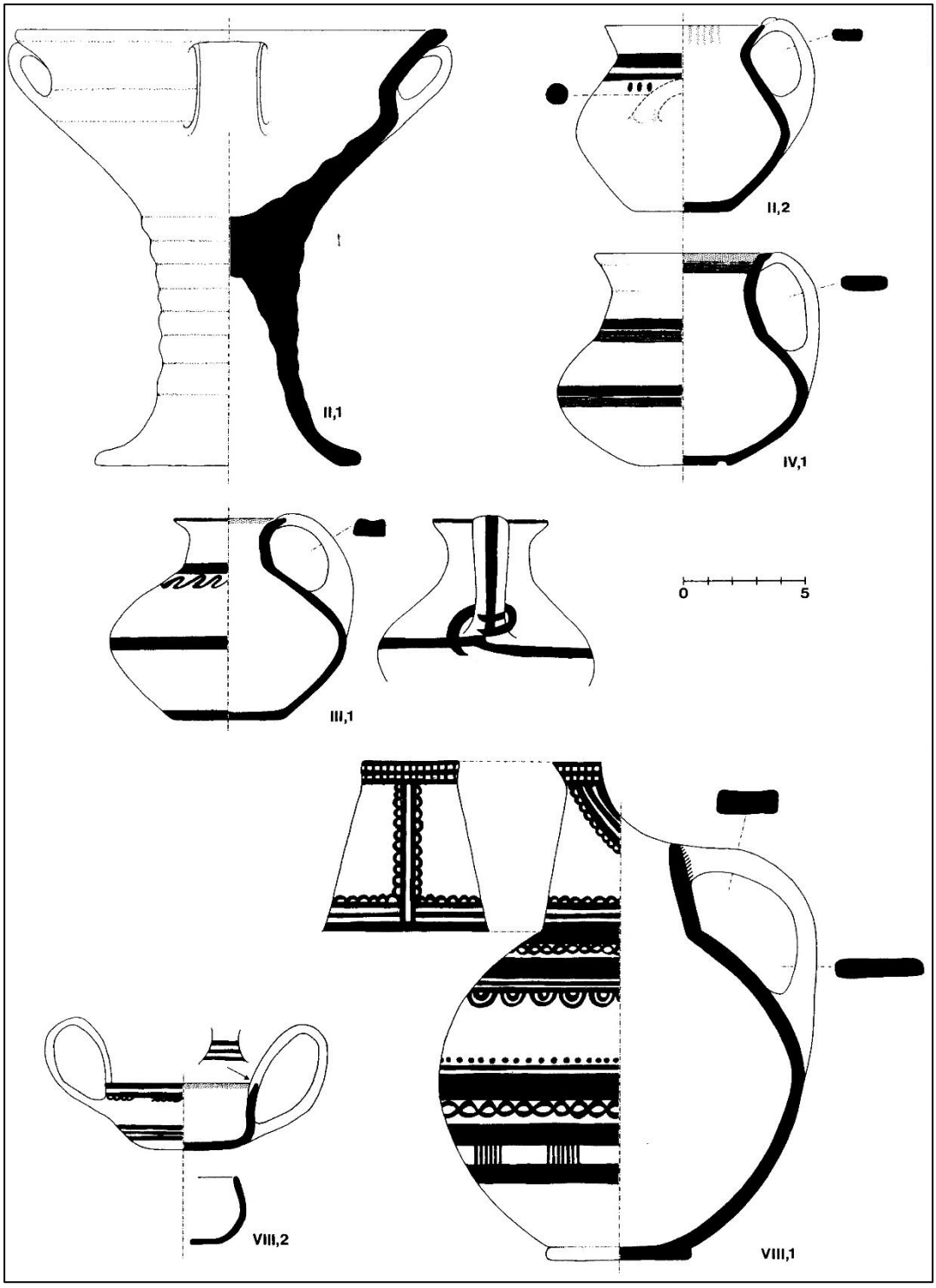

Fig. 83: Pottery from graves II, III, IV and VIII (from Dietz & Divari-Valakou 1990, Fig.12)

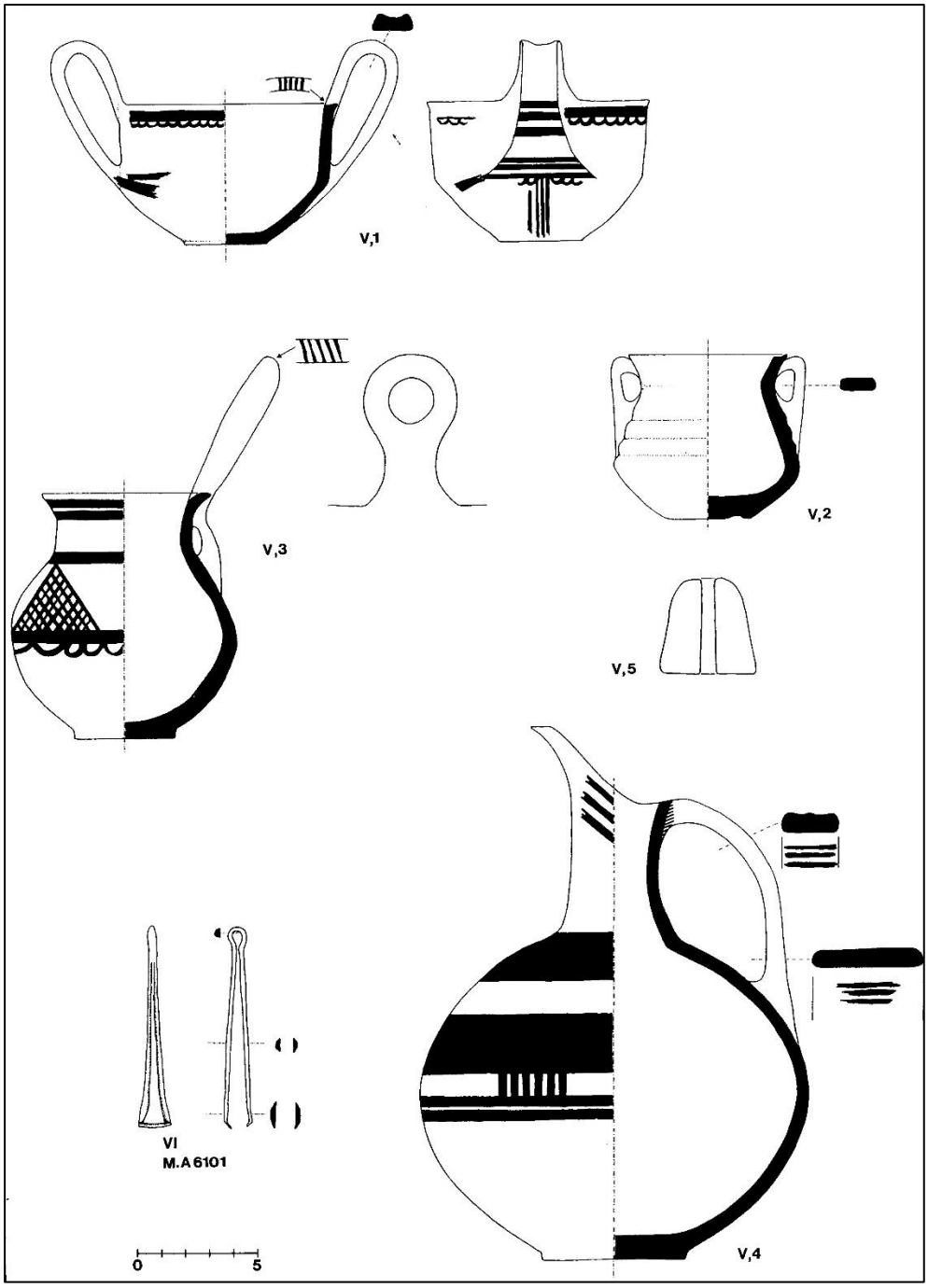

Fig. 84: Offerings from graves V and VI (from Dietz & Divari-Valakou 1990, Fig.15)

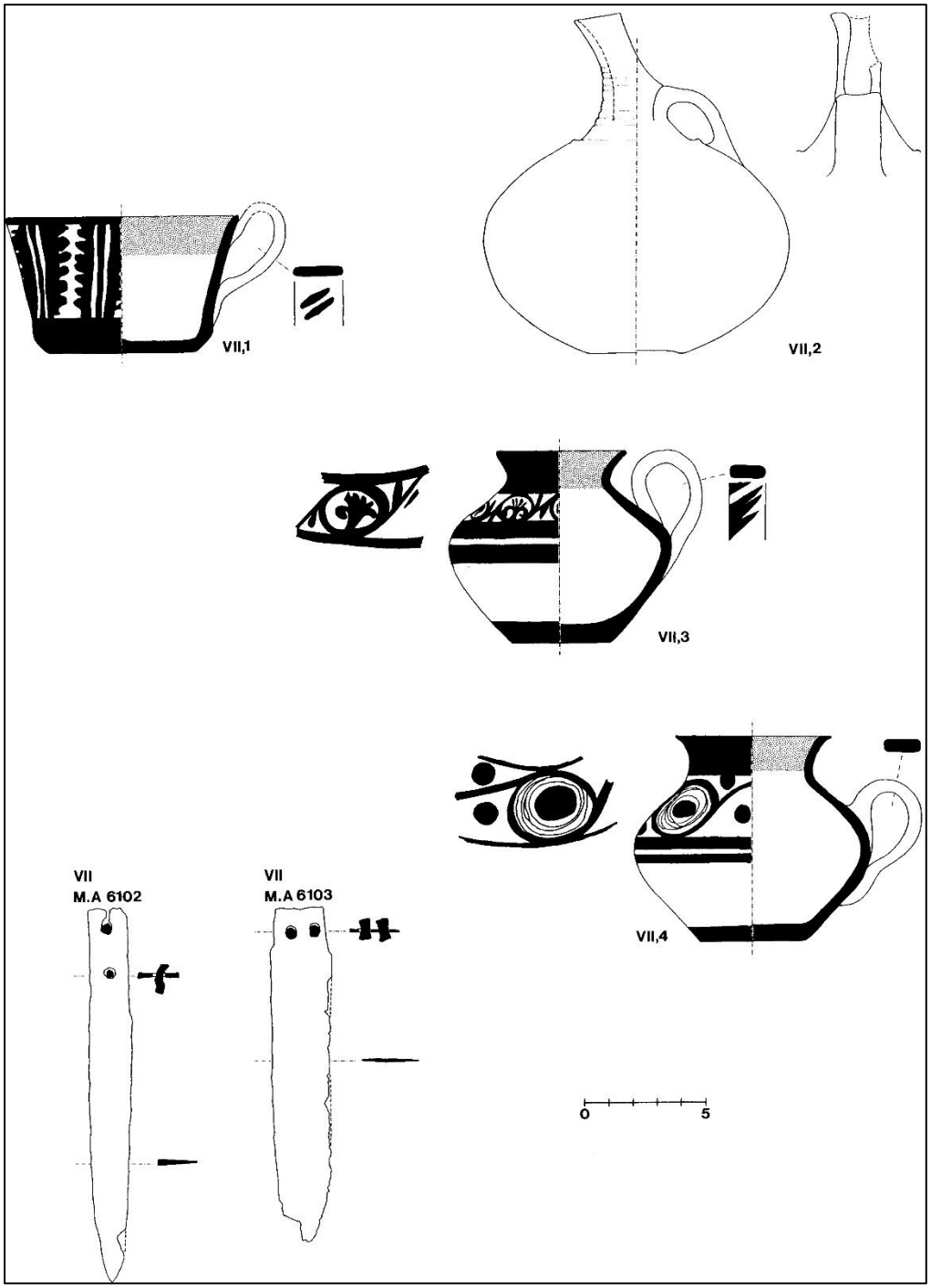

Fig. 85: Offerings from grave VII (from Dietz & Divari-Valakou 1990, Fig.22)

b. Use categories

The vessels found in the graves fall into three broad categories concerning their use.

*i. eating and drinking***:** The four cups and the goblet could have been used for eating and/or drinking purposes.
ii. *pouring*: The seven jugs could have been used for pouring liquids. This was the most frequent use category at Myloi. The quantity of pouring vessels increased also in Lerna during the SGE.
iii. *storing*: The small jar could have been used for storing purposes but only for very small quantities. Large storage jars are missing from Myloi and they were only occasionally found in Lerna.

In contrast with Lerna, where eating and drinking vessels predominate throughout the period, at Myloi pouring vessels were the most common type of vessel found in the graves. However, eating and drinking vessels were also frequent.

c. Size

Most (10) of the vessels found at Myloi were small, while miniature vessels have not been found. Moreover, although some (3) large vessels exist, very large storing vessels are missing.
At the same period, small vessels predominate also at Lerna but miniature vessels were placed in the burials as well, more often with sub-adults.

d. Wares

Here a general distinction between fine-medium and coarse wares has been made, while the existence of imported pottery is also examined.
All vessels found at Myloi were of medium-fine wares. At the same period at Lerna medium-fines wares predominate, but coarse wares have also been found.
Two of the jugs were imported, one from Central Greece and the second from Aegina or Athens. A GM goblet may have been also imported from Central Greece (Table 101). Therefore, 1/3 of the graves contained imported pottery. On the contrary, at Lerna the percentage of imported pottery found in the graves declines during the late phases of the cemetery.

Origin	Catalogue No	Ware	Grave No	Date	Shape
Central Greece?	AMA 4080	Grey Minyan	II	MH IIIB	goblet
Athens or Aegina	AMA 3849	Polychrome Mainland	IV	LH IB	jug
Central Greece	AMA 3846	Fine orange, burnished[88]	VII	LH I	jug

Table 101: Catalogue of imported vessels

e. Preservation

In this section breakage patterns of the pottery found in the graves will be examined.

i. intact or broken but whole preserved: The vast majority of the vessels (11) from Myloi were well preserved when they were deposited in the graves. However, they were chipped on rims and handles indicating that they were used for some time before the burial.

ii. broken, sherds missing: Some sherds were missing from three vessels. Two of them were found in a disturbed grave, which may have caused their fragmentary condition. Alternatively, the vessels were already broken when they were deposited in the graves.

iii. broken, more than 1/3 missing: None.

iv. broken, single sherd preserved: Single sherds from the grave fills have not been published. Of course, we should keep in mind that this was a rescue excavation and sherds found in the grave fill may have not been recorded.

We see therefore, that the deposition of complete vessels is the rule at Myloi. The deposition of complete vessels also increases at Lerna during the late phases of the cemetery. It seems that by that time well preserved, although used, vessels were required for the burial ritual, especially in the extramural cemeteries.

f. Position

At Myloi the position of most of the vessels in relation to the body is known. However, the lack of anthropological information does not allow for further analysis of this parameter.

[88] The same ware group has been found in two kantharoi from B-cycle at Mycenae (Γ-52, O-192) (Dietz & Divari-Valakou, 61).

*i. around skull***:** Four vessels were placed next to the skull.
ii. between chest and pelvis: Five vessels were deposited close to this area of the body. Actually, three of them were placed next to the arms of the deceased and the remaining two were placed above the pelvis of one individual. The placement of vessels upon the body is rather unusual.
iii. close to legs: Three vessels were placed next to or between the legs of the deceased.
iv. generally in the grave: The relation of the two vessels found in grave II with the skeleton is unknown. The two vessels were found embedded in the grave floor.
v. outside or above the grave: No vessels have been found outside or above the graves at Myloi.

In contrast with Lerna, where vessels were placed primarily next to skull, at Myloi different areas of the grave were used with more or less the same intensity. It seems that the placement of many vessels in the same grave made the use of all the available space necessary.

1.8.3. Non pottery offerings

Next to pottery, four objects other than pottery have been found in three graves at Myloi. 1/3 of the graves contained non pottery offerings, namely tools and/or weapons.

a. Tools

A pair a bronze tweezers (AMA6101) found in grave VI is the only object that can clearly characterised as tool. A possibly adult individual was buried in the grave, which dates from the MH III/LH I period (2nd phase). No other objects have been found in the grave. Tweezers are missing from Lerna.
A bronze knife (AMA6102) and the bronze razor or dagger (AMA6103), on the other hand, may have been used as tools or as weapons. They were both found in the LH I double burial VII together with the skeleton of the adult buried second in the grave. The knife was probably found close to the legs of the deceased and the razor or dagger was probably found under the skeleton. Four vessels, one of which was imported, have been found in the same grave. Grave VII was the biggest and the wealthiest grave at Myloi. So, here size and wealth correlate.

In contrast with Myloi, bronze tools are missing from Lerna. The only possible bronze tool or weapon, a bronze razor blade or knife, dates from the MH II period.

b. Ornaments

No beads, rings or any other ornament have been found at Myloi.

At Lerna ornaments were first deposited in the graves during the MH II period and they were sporadically found throughout the period under study. They were mostly found in sub-adult burials and only occasionally in adults, no older than PA. Their absence from Myloi probably reflects the age composition of the burial assemblage, consisted primarily from adults.

c. Pins and whorls

A terracotta whorl (AMA4078) was found on or in front of the chest of a skeleton of unknown age in grave V. The grave dates from the MH IIIA period. The finding spot of the whorl indicates that it may have been used as a bottom or as head of a wooden pin holding a garment. In the same grave four vessels have been found. At Lerna, whorls were more usually found in adult MH II-LH I graves.

Pins have not been found at Myloi. At Lerna, bone and bronze pins have been found mainly in sub-adult burials. The age of the deceased at Myloi may again have resulted in the absence of pins.

d. Weapons

As we have seen, the bronze knife and the bronze razor or dagger may have been used as weapons. On the other hand, stone weapons are missing from Myloi. In contrast, at Lerna only simple stone weapons, or rather hunting implements, have been found dating from the MH II until the LH I.

e. Miscellaneous objects

None.

f. Organic remains

No reference to organic material has been made.

We see therefore that at Myloi a rather standardized assemblage has been found, consisting almost exclusively of pottery, usually in recurring sets, sometimes accompanied by simple bronze tools and/or weapons. It can be tentatively suggested that such a pattern reflects the late date of an extramural cemetery, where primarily adults were buried.

Let me summarise the main characteristics of the cemetery at Myloi. Myloi was a MH III-LH I extended extramural cemetery, most likely belonging to the settlement of Lerna. The graves were well constructed cists, of different sizes. Primarily adults were buried in the cemetery, though the lack of anthropological study does not allow for further age and gender analysis. Most of the graves contained offerings, as a rule pottery and in few cases bronze tools and/or weapons. However, only a couple of them had a more varied assemblage consisting of more than one vessel and/or bronze objects. What is important, correlation between well-constructed cists, many vases, imports and bronze items and secondary treatment is observed.
The significance of these observations will be discussed in the next section together with the nearby cemetery of Lerna.

1.9 LERNA AND MYLOI: CONCLUDING DISCUSSION

Having thoroughly examined all the available information about the burials and their context let me now address the main question posed in this study: What does the mortuary patterning tell us about the social structure of the MH Lerna community? In order to give some answers, differentiation between the burials and change through time will be examined.

Let me first summarize the basic patterns observed until now. Age and kinship, and to a lesser extent gender were the primary principles structuring everyday life. Most of the differences in the burial assemblage are observed between age groups, while the persistent shared practices within grave groups and their close association with free standing houses underlines the importance of kinship and descent. Age and to a lesser extent gender divisions became more pronounced as time passed.

On the other hand, wealth differences between individuals and/or between groups were never pronounced.[89] Again however, towards the end of the MH period and the transition to LH a couple of graves in Lerna and Myloi stand out in terms of elaboration. Especially the two LH I shaft graves are clearly different from the other graves.

In the following sections I will first discuss aspects of age and gender differentiation, I will then turn to wealth and elaboration as criteria of differentiation and I will close the discussion about social structure by examining the importance of kinship. Then, I will examine change though time in all the above mentioned aspects. The degree and nature of differentiation in the mortuary record will be discussed in each section. Finally, throughout the discussion, emphasis will be given in local particularities or divergent developments in Lerna and Myloi.

1.9.1 Age differentiation

Age differentiation among the burial assemblage from Lerna was attested throughout the period in different aspects and in changing degrees. Thus age differences were at some time expressed by means of different grave types, for example, while later the emphasis could move into the placement of the graves. Moreover, the degree of differentiation varied between different aspects but also changed through time. Clear cut divisions exist, but are rare. Overall, differentiation between adults and sub-adults

[89] Although of course we are missing the evidence from the shaft graves.

was primarily expressed in the grave types and furnishings, in the grave finds and in the spatial arrangement of the graves.

If we first examine the inclusion of different age groups in the cemetery, we observe that during the EH III and the transitional EH/MH period only foetus/neonates were buried in the settlement. During this early period thus, foetuses/neonates, or at least some of them, clearly received differential mortuary treatment. From the MH I until the MH III period adults and sub-adults were almost equally represented in the burial assemblage. During the longer part of the MH period, therefore, all age groups seem to have been buried in the settlement (Voutsaki 2004, 352; Ingvarsson-Sundström 2008; Ingvarsson-Sundström & Nordquist 2005, 156-174; Pomadère 2010; Voutsaki et al. 2013). Sub-adult burials clearly predominate again in the settlement during the transitional MH III/LH I period and the LH I period. At the same time the cemetery at Myloi came into use indicating that the extramural burial ground was primarily reserved for adults. However, some adults were still buried in the settlement.

Concessions on age inclusion in the extramural cemetery of Myloi can only be tentative, as only a small group of graves have been excavated and the skeletal material has not been examined. Keeping these restrictions in mind, neonates and infants and probably young children seem to be missing from the extramural cemetery.

Some differentiation in the location of sub-adult graves was also attested in the settlement. Graves contemporary with the houses, for example, belonged to neonates, while both adults and sub-adults were buried upon the ruined houses (Milka in Voutsaki *et al.* 2006, 107; Milka 2010; Voutsaki et al. 2013). Moreover, during the MH III/LH I and LH I period, a stricter spatial differentiation between sub-adults and adults buried in the settlement area was observed. For instance, only sub-adults have been found in area D, group G.

Differentiation between adults and sub-adults can also be seen in the choice of grave types and furnishings. During the early phases, burial jars were exclusively used for sub-adult individuals (Blackburn 1970, 285; Nordquist 1979, 20; Voutsaki 2004, 353). More precisely, neonates and infants not older than 1 year old were buried in jars. Only once was an infant older than 1 year old buried in a jar. It should be stressed however, that not all the infants and neonates were placed in burial jars. Conversely, only adults have been found in cists made with vertically placed stones and mainly adults were buried in brick cists. Generally, the percentage of adults buried in cists was higher than the percentage of sub-adults. Moreover, neonates were the less frequent age category

found in cists. Although clear-cut divisions are once more missing and a degree of overlap exists, it can be suggested that a fine categorisation based on specific age groups may have existed.

Differences were not only found in the grave types used but also in the grave furnishings. Thus, grave floors and grave covers were more often found in adult pits and cists. Moreover, there is a stronger association between adult burials and grave floors and between sub-adult burials and grave covers. It can be suggested that in sub-adult graves there was more often a tendency to protect the burial by placing cover slabs.

Some hints of age differentiation can be observed also in the objects deposited in the grave. Generally, pottery was more often found in sub-adult graves, while it was never found with OA individuals. More precisely, the MH I burials with pottery belonged only to sub-adult individuals. During the late phases pottery was more often deposited in sub-adult burials, although adults were usually given more than one vessel. It should be stressed however, that the largest number of vessels (6) was deposited with an infant burial. In addition, pouring vessels (mainly jugs) were associated with older children and not with neonates.[90] In the adult group, on the other hand, they were exclusively found in PA burials. Finally, miniature vessels were more often associated with sub-adult burials, though never with neonates. Certain age categories seem to have been provided with specific offering categories.

Age differentiation was sometimes observed in grave goods other than pottery. Most of the tools and simple weapons, for instance, were found in adult burials, while chipped and ground stone tools were the only objects found in OA burials. In addition, ornaments were found in sub-adult and young adult burials and never in older adult (MA-OA) burials. Finally, terracotta whorls were never found in neonate burials. Once more, different objects seem to have been placed with, or to have been excluded from, specific age groups. Tools and simple weapons may have been personal belongings of the deceased indicating their personal skills and/or professions. Ornaments and terracotta whorls, if they were used as buttons, may have been worn in everyday life probably indicating personal identities, like life stages. Therefore, it seems that it was not considered appropriate for adults older than 40 years old to wear ornaments, nor for neonates to wear clothes in which terracotta whorls were used one way or another.

[90] Only once was a fragmented jug found in the shaft above a neonate grave (DE 33, MH I).

Regarding burial treatment, relative homogeneity has been observed between adults and sub-adults. All burials were inhumations and adults and sub-adults have been found in single and multiple burials. Secondary treatment of the skeleton, when practised, mostly involved adult burials, but bones were missing of a couple of undisturbed sub-adult graves as well.

If we turn to body position, adults and sub-adults were buried in contracted, extended and prone position. However, some hints of age differentiation were present in some aspects of the disposal of the dead, but were never emphasised. Thus, most of the sub-adults were buried with their head towards the north, while most of the juveniles were buried with their heads towards the east. We see therefore that although the graves were usually aligned to nearby walls, the orientation of the body inside the grave was at times influenced by age. Furthermore, most of the distinctions in arm position were found between sub-adult and adult individuals. Again, however, clear cut divisions are missing and only some vague tendencies were noticed.

Finally, if we turn to diet the macroscopic investigation of oral pathology and the stable isotopes analysis revealed differences between adults and sub-adults. The sub-adult segment of the population consistently consumed soft and processed foodstuffs, while a plant-based diet during early childhood is suggested by the analyses. Weaning age has been estimated around the age of three. Adults, on the other hand, had a mixed terrestrial diet and they consumed harder foodstuffs (Triantaphyllou *et al*. 2008, 3032; Triantaphyllou 2010a, 447-448; Voutsaki et. al. 2013, p.135-136, 141). It can therefore be suggested that weaning age was recognised as a different life-cycle stage, which may explain why some neonates and infants had a different burial treatment.

To conclude, age was an important criterion of differentiation and a principle structuring social life in MH Lerna. However, age differentiation was not absolute and it underwent changes through time. Differentiation between adult and sub-adult burials were more apparent during the transitional EH/MH period, and they became more emphasised again during the MH III/LH I and the LH I period. Throughout the period, apart from a general distinction between adults and sub-adults, a more refined system of categorisation based on narrower age grades seems to have existed. It should be kept in mind that the cultural distinction between mature and immature individuals recognized by the inhabitants of Lerna was, in most probability, different from our categorisation of adults and sub-adults. Having said that, it seems that throughout the

period neonates and infants were treated differently and the same seems to hold true for MA-OA (individuals older than 40 years old).

These finer subdivisions, however, cannot easily be reconstructed because of the small numbers of people in each sub-group, e.g. old adults with offerings, and the fact that age divisions are cross-cut by other aspects of differentiation, e.g. kinship, gender, status, etc. Moreover, some caution is necessary as the osteological ageing systems give much more refined, almost accurate, biological ages for sub-adults than they give for adults (Mays 1998). Most of the adult skeletons are ascribed to a broad age category (YA, MA, PA, OA), while the OA category is usually underestimated.

In any case, the data indicate that it was not age alone that was expressed in the burials as clear-cut divisions are absent, and in many respects similarities between age categories can be observed. Age divisions were neither absolute nor stable. They were probably mediated by other aspects of the identity of the deceased, such as gender to which I will now turn.

1.9.2 Gender differentiation

Some gender differentiation among the adult burials has been observed, although it was never pronounced. Differences were more clearly expressed in the mode of disposal of the dead and in the grave finds and to a lesser extent in the grave types and in health status and diet. Gender differentiation in the location of the graves has not been observed in Lerna.

First of all, both men and women were buried in the settlement and no gender category seems to have been excluded. However, although during the early phases almost an equal number of males and females has been buried in the settlement, during the later phases more men than women have been found (Voutsaki 2004, 355; Triantaphyllou 2006) (Chart 118). This pattern, may indicate a preference for burying more men in the settlement and more women in the extramural cemetery but it cannot be confirmed as anthropological information from Myloi is missing.[91] On the other hand, the imbalance between men and women may reflect gender differentiation in the spatial arrangement of the graves inside the settlement. As only a part of the settlement has been excavated this possibility cannot be excluded.

[91] Though we will see in chapter 2.7 that in the EC of Asine men and women are equally represented.

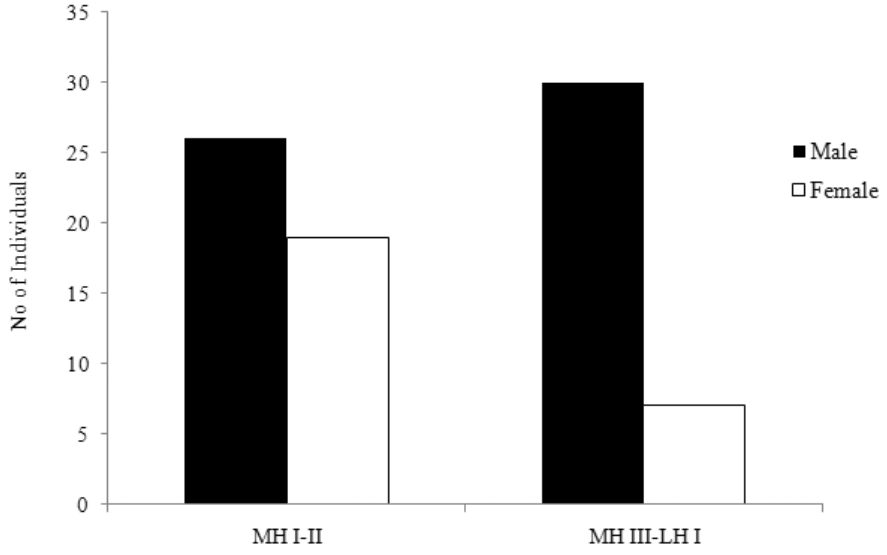

Chart 118: Representation of sex groups (from Voutsaki et al. 2013, Fig.3).

Concerning grave construction, overall the same grave types were used. However, the percentage of females buried in cists was slightly higher than males. Moreover, subtle differences were observed in specific cists types used for the two sexes. Thus, most of the individuals buried in brick cists were male adults, while in mixed type cists more adult females than males were buried. We see therefore that in this aspect only subtle differentiation has been observed, while there is overlap in the grave types used for men and women.

If we now turn to grave finds some differentiation was observed in the deposition of pottery. Although an equal number of male and female graves contained pottery, the percentage of female graves (as estimated against the total number of female burials) was higher than the percentage of male graves. Furthermore, a change has been observed between the early phases, when more female than male burials contained pottery, and the late phases, when pottery was more often placed in male burials. However, the quantity of pottery per grave found in male burials was larger throughout the period.

Some hints of gender differentiation were also observed in grave finds other than pottery. Throughout the period all but one of the few simple weapons were found in PA and MA male burials. On the contrary, bone and bronze pins were never associated with male burials, while terracotta whorls were more often found in PA female burials.

Ornaments were usually found in sub-adult burials and with more females than males. Interestingly, they were never found in older adult (MA-OA) burials.

In many of these cases, the objects found in the graves seem to have been not only gender but also age specific. The two facets of the personal identities seem closely interwoven. It has been proposed by other researchers that gender position of each individual was changing according to his or her age (Sofaer-Derevenski 1997b; Voutsaki 2004). It seems that these changing attitudes were sometimes expressed on the objects deposited in the graves.

If we now examine body position, throughout the period there was a clear preference in burying females on their left side and males on their right side (Nordquist 1979, 17; Ruppenstein 2010). However, exceptions do exist indicating that gender alone was not the decisive criterion when placing the skeleton. Further, if we turn to orientation of the body, the adults buried with their head towards N were mainly MA and males clearly predominate, while most of the females in the cemetery were buried with their head towards S. All of them were PA. Although we are talking about few cases, particular age-gender grades seem to be chosen.

If we examine diet, the stable isotopes analysis and the macroscopic analysis of dental lesions have shown that generally men and women consumed a similar proportion of animal and plant based proteins. However, isotopic differentiation of a couple of males may indicate that men had a more varied diet than women. Moreover, during the MH III-LH I men had a slightly higher consumption of animal protein. Finally, the dental microwear analysis indicates that women consumed softer and more processed foodstuffs (Triantaphyllou *et al*. 2008, 3033; Voutsaki et al. 2013, 137, 141). To conclude, in general men and women shared the same diet, but some slight differences exist with regard to the texture of the foodstuffs and the type of the protein intake.

If we now turn to health status, the osteological analysis showed that men had higher rates of skeleto-muscular lesions and non-specific infections, while women had high rates of anaemia and enamel hypoplasia defects. This differentiation might suggest that men were more engaged with heavy manual work and women had poor nutrition and living conditions resulting to stress episodes, especially in MH I - II. Differences in the health status of men and women, and thereby indications for sexual division of labour, continue in the MH III-LH I period (Triantaphyllou, in Voutsaki et. al. 2006, 97-102; Voutsaki et al. 2013, 141).

We see therefore that the skeletal evidence reveals some gender differences regarding diet and health status. Once more, these differences were not emphasised. It should be stressed here that differentiation revealed through the skeletal analyses has a different significance than differences in the mortuary practices. Skeletal data informs us about variation in the everyday life resulting from practises throughout one's life, whereas differences in the mortuary sphere express a single purposeful act, which may or may not reflect real differences in life. In the case of gender differences, it seems that the archaeological evidence correlates well with the skeletal evidence, both pointing to minimum differentiation between men and women.

To conclude, gender differences were never emphasised in Lerna (Nordquist 1979, 27; Voutsaki 2004, 355). Differentiation was perhaps expressed in body position and orientation, while the existence of specific age-gender groups is sometimes indicated by the grave finds and body position. The skeletal evidence also reveals minimal differentiation with regard to diet and the sexual division of labour.

Some subtle gender differentiation existed already in MH I–II, but it was not as much emphasised as age differentiation. During the MH III-LH I period the archaeological and the skeletal evidence show that gender differences were emphasised slightly more. It can thus be proposed that gender was not the main structuring principle of MH society, as gender divisions were marked neither in the mortuary practices nor in the skeletal material. Gender position was sometimes mediated by age but other facets of personal identities must also have been important. Before I turn to kinship, which will also bring houses into the discussion, I will examine the role of personal status and "wealth", and the way these two components were expressed (or not expressed) in the elaboration of the graves.

1.9.3 Elaboration, 'wealth', status

In general, differentiation between individuals in terms of 'wealth' was minimal during the early phases, though it became more pronounced towards the end of the period.

Subtle differences in grave size and construction between groups were noted already from the early part of the MH period and they were maintained throughout the period. However, the differences were never really pronounced.

A question then arises: Can we attribute these differences to status differences? A more cautious approach is adopted in this study by examining grave elaboration alongside other aspects of the mortuary treatment, especially the quantity, quality and diversity of

the burial offerings and the existence of more complex forms of burial treatment, as well as by correlating all these different variables. Furthermore, the placement of the graves in focal areas of the settlement is included in the analysis.

i. differentiation between individuals

During the early part of the period no marked differences between individual graves can be observed. Differentiation in terms of grave size, grave construction and grave offerings is minimal. For instance, only a couple of sub-adults were buried in burial jars (8) and in cist graves (4), and a few adults were buried in cist graves (11). The rest of the population, adults and sub-adults, were buried in pits.

As regards to grave offerings, only a few MH I-MH II graves[92] contained one or two pottery vessels. Non pottery offerings, when found, were usually made of local materials (stone, bone, clay). In five MH II graves, however, bronze objects (one chisel and five rings) were found. The chisel and one of the rings were placed in adult burials (a pit and a cist), while the remaining rings were found in sub-adult graves of different types (jar, pit, cist). During this time age and gender does not seem to correlate with wealth. Offerings were placed in adult and sub-adult burials and with both sexes.

Moreover, more or more diverse offerings are not necessarily found in the earlier cists (Voutsaki et al. 2013, 137). Pottery was found in different grave types and the same holds true for the few bronze objects. It is thus important that there is no correlation between grave type, grave construction and quantity or diversity of the offerings.

If we turn to burial treatment, a couple (4) of early double or multiple burials existed. However, neither the grave type - they were all pits - nor the quantity and the quality of the offerings indicates higher status of those deceased.

The only early burial that stands out is a MH II PA male buried in a semi-cist grave[93] (J4B -217Ler). Four vessels, one of which was imported from Crete, and a bronze razor blade or knife were placed in the grave. This was the only bronze weapon found in Lerna. Moreover, the body was probably buried in extended position, and received secondary treatment when a second individual was buried on top of it at a later time.[94]

[92] 3 MH I graves (11% of all MH I graves) and 12 MH II graves (21,8% of all MH II graves) contained pottery.

[93] The grave was sunk among fallen stones, so the grave type is difficult to ascertain. It cannot not be excluded that this was actually a pit opened among house debris.

[94] The length of the pebble floor, on which the skeleton was laid, reinforces the belief that the legs were extended. The leg bones were disturbed when the second burial (J4A, 216Ler) was buried. Some of them were missing and others were placed along NW side of the grave (Blackburn 1970, 81-2).

Both the extended position of the skeleton and the secondary treatment are unusual for this period. However, this grave (nor any other grave) was not placed in a prominent location in the settlement.

Finally, the osteoarchaeological data confirm that differentiation between individuals was not pronounced; better health, as is indicated by the absence of mechanical load and stress lesions, does not correlate with burial treatment at any time (Voutsaki et al. 2013, 137).

To conclude, in MH I–II differentiation between individual burials in terms of grave elaboration and mortuary treatment is minimal and does not reflect social status differences in terms of wealth. We could thus suggest either that there were no wealth differences in real life or that possible differences were not expressed in the mortuary practices. The comparative study of the settlement data and particularly the study of differentiation between houses may give some answer.

During the later part of the period differentiation between individuals became more pronounced, as a couple of graves stand out, as regards grave type and size, burial offerings, mortuary treatment, but also their location in prominent positions in the settlement.

A few single burials in Lerna and in the neighbouring Myloi stand out in terms of grave construction and offerings.[95] They are all well-constructed and relatively large cists, where pottery and non-ceramic offerings, including silver and bronze objects, were found. They all date from the transitional MH III/LH I and the LH I period.

Interestingly however, three of the Lerna 'rich' graves belong to infants and a child, while in the fourth one no bones were found. At Myloi one of the wealthier graves belongs to an adult, while the age of the second is unclear. The appearance of relatively 'rich' sub-adult burials inside the settlement may signify that individual status, which was not achieved in this early age, was closely interwoven with group identity and status, a topic which will be discussed below.

The appearance of the two shaft graves during the LH I period and their use until the very beginning of the LH IIA, on the other hand, implies in a more pronounced way the emergence of individual status differences as a new principle ordering social life (Voutsaki 1997; Voutsaki 2010b, 603-604). Unfortunately, both graves were robbed

[95] Graves D5, DC2, DE21, BC3 at Lerna and graves V and VII at Myloi. Also the two shaft graves from Lerna.

and the human remains together with any possible offerings had been removed (Blackburn 1970, 168-173; Lindblom 2007). However, the importance of the two shaft graves is also implied by their location. Both graves were placed in a prominent area in the settlement, cutting down the debris of the EH II House of the Tiles and of the tumulus above it.

Nevertheless, with the possible exception of the Shaft graves, neither the quantity nor the quality of offerings in MH III–LH I Lerna and Myloi is impressive (Voutsaki et al. 2013, 142), when compared to other neighbouring sites, i.e. Argos, Asine – let alone Mycenae. For example, the number of clay vessels found in the graves is not very large,[96] gold objects are totally missing, while only a couple of silver and bronze objects were found.

If we turn to burial treatment, the secondary treatment of the skeleton resulting from re-opening of the graves increased during the late phases of the period under study (17 skeletons) and at the same time few individuals (6) were buried in extended position. These practices however, never predominated. What is important is that now there are more consistent correlations between different aspects of the mortuary treatment. For instance, extended skeletons are usually found in larger cists, and contain more offerings. On the other hand, mortuary treatment still does not correlate with health status. Although the number of skeletons lacking stress lesions increases in this period, none of the burials interred in larger graves or accompanied by richer offerings fall into this category (Voutsaki et al. 2013, 142). Once more however, we should keep in mind that we miss the evidence from the shaft graves.

To conclude, during the MH III-LH I period differentiation between individual burials in terms of grave elaboration and mortuary treatment becomes more emphasised. Few graves stand out in terms of grave construction, the composition of the burial assemblage and their prominent location. The notion of personal status differences is now emerging, though this is not as pronounced in Lerna as in other cemeteries.

Overall however, and through most of the period under discussion, every grave in Lerna is unique regarding the sets of objects found in it. It seems that different identities, and not simply ‘wealth’, were expressed in the burials. It can be suggested that a very

[96] Once 6 vases were placed in a LH I, infant cist grave (DC2). This is the biggest number of vases found in grave at Lerna. In Myloi 4 vases were placed in a MH IIIA cist grave (V) of unknown age and in a LH I adult cist grave (VII).

refined or, we could almost say, personalised system of recognition existed, also attested in the lack of standardisation in body position. As time passes, however, differentiation becomes more standardized. Fixed object sets appear and the presence of grave goods begin to correlate with the grave type, as most of the offerings were found in cists.

Let me now turn to grave groups and examine whether individual status differences were embedded in group status.

ii. differentiation between groups

As we have already seen (chapter 1.2.4), a main characteristic of the spatial organisation of the graves at Lerna is the existence of grave groups, closely related to free-standing houses. Here, differentiation between those groups in terms of 'wealth' and possibly status will be examined first, while later their special significance in terms of kinship and descent will be discussed. Overall, the grave groups exhibit largely similar practices. However, some variation from prevailing practices is sometimes observed.

During the MH I-II period differentiation between individual burials is minimal, while there is some differentiation between grave groups (Fig. 86, 87). For instance, early cists cluster in group B, while burial jars, used for sub-adult burials, cluster in the adjacent groups B and A. The same groups have the highest proportion of vases (local and imported), as well as of non-ceramic offerings.[97] If we turn to burial treatment, groups B and A have also the highest density of secondary treatment of skeletons and of double or multiple burials. Therefore, groups B and A stand out in most aspects, though it should be kept in mind that differentiation is not pronounced (Voutsaki et al. 2013, 137-8).

[97] However, no items which could be considered 'valuable', i.e. made of semi-precious stone, bronze, or silver, have been found in those graves.

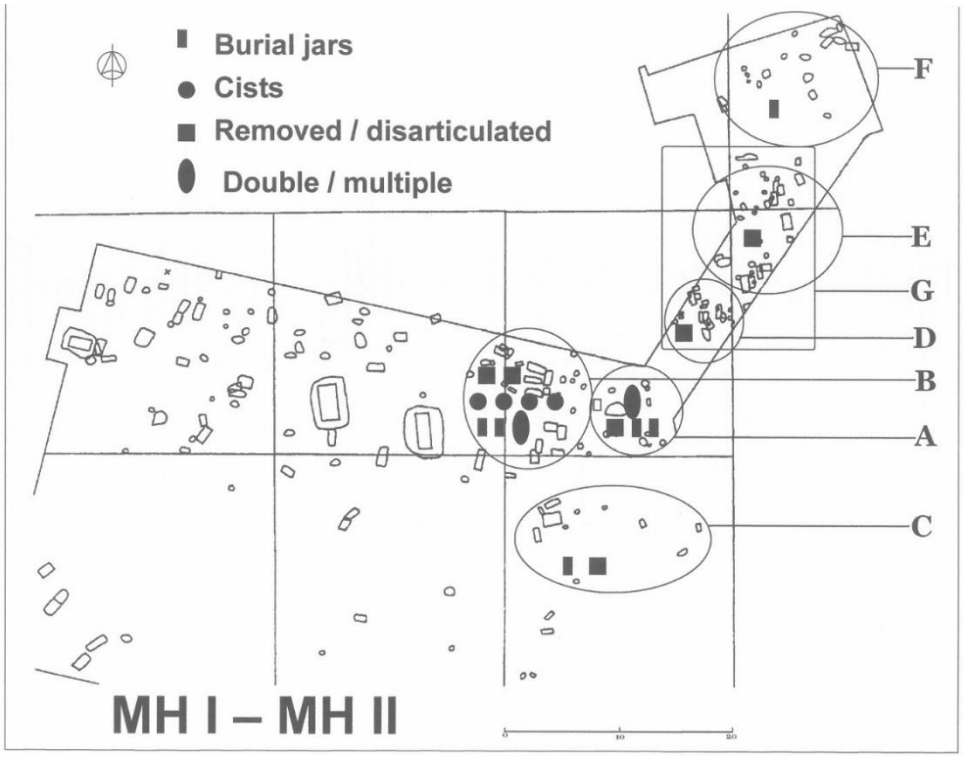

Fig. 86: MH I-MH II: Mortuary treatment in the different grave groups (from Voutsaki et al. 2013, Fig.8a).

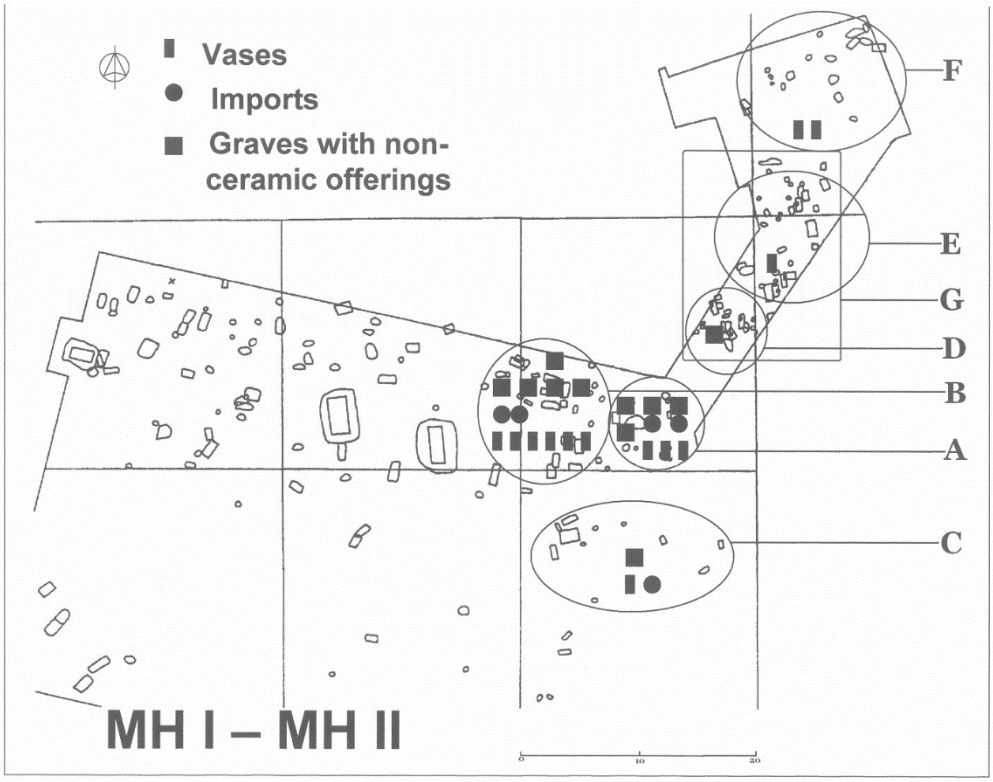

Fig. 87: MH I-MH II: The distribution of offerings across the different grave groups (from Voutsaki et al. 2013, Fig.8b).

During the later part of the period, MH III-LH I, group B still reveals high proportion of cist graves and also retains the highest density of burial offerings (vases, imports and non-ceramic objects) (Fig. 88). However, objects of higher value, i.e. silver, bronze, semi-precious stones, paste, do not cluster in group B, but are spread across the settlement (Voutsaki et al. 2013, 143). Moreover, group B still stands out for the density of removed/disarticulated skeletons, and of double or multiple burials (Fig. 89). On the other hand, during the MH III-LH I period, skeletons missing stress lesions are found in group B, but also in groups C and F. We see therefore that differentiation between groups persists but differences remain subtle.

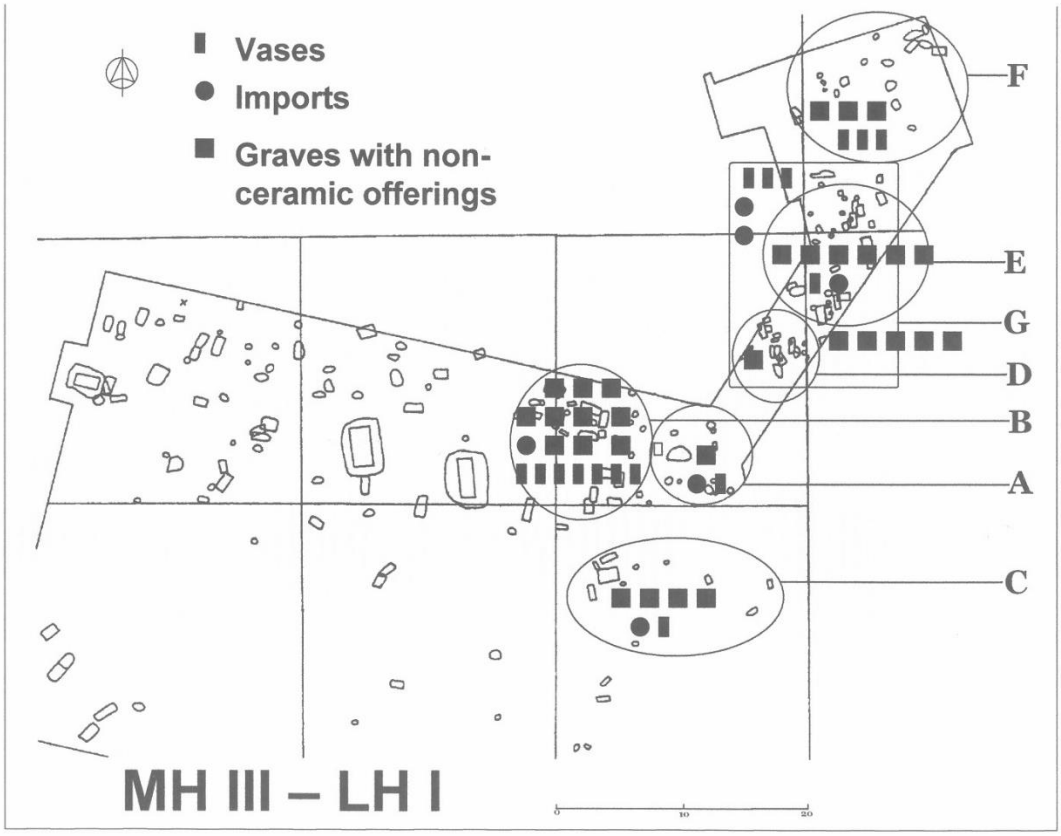

Fig. 88: MH III-LH I: The distribution of offerings across the different grave groups (from Voutsaki et al. 2013, Fig.10b).

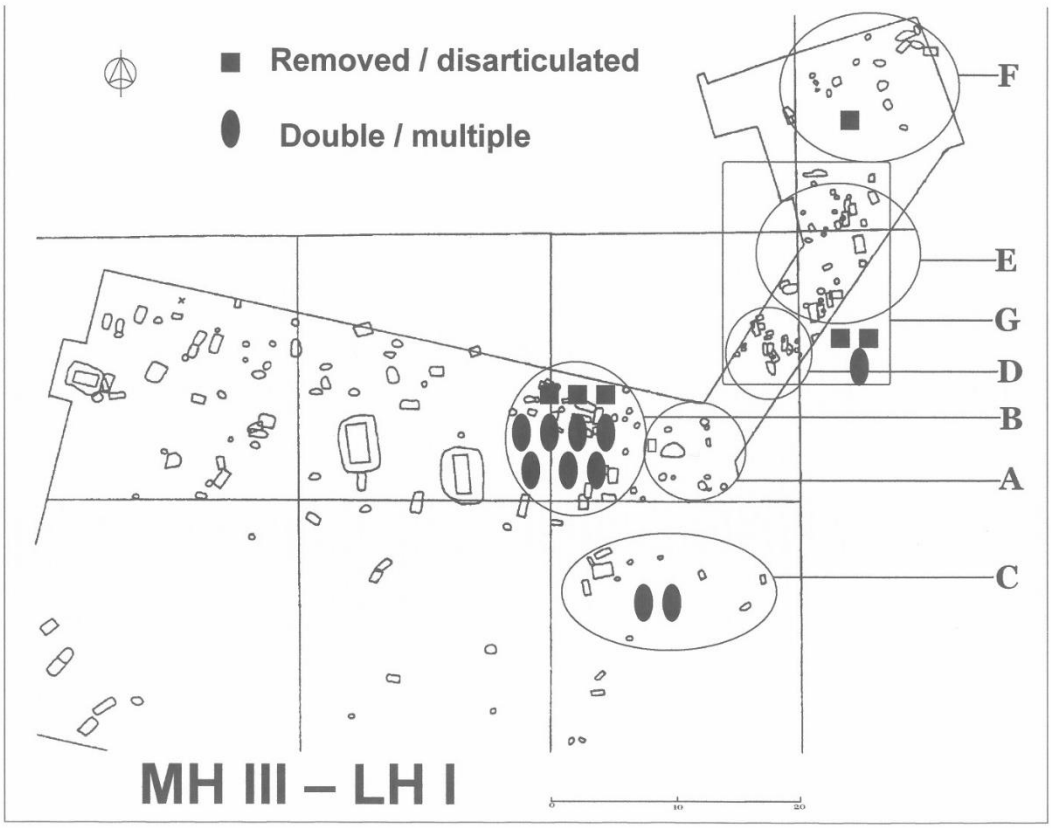

Fig. 89: MH III-LH I: Mortuary treatment in the different grave groups (from Voutsaki et al. 2013, Fig.10a).

Finally, the spatial arrangement of the groups in the settlement is of interest. The grave groups that stand out in terms of offerings and treatment are situated close together in the area adjacent to the EH tumulus built upon the ruins of the House of the Tiles. It seems therefore that a focal area in the settlement was connected with burials which were characterised by more diverse and complex treatment. At the beginning this connection concerned groups of people, most probably kin-related, rather than particular individuals. Interestingly, the 'wealthier' grave of the early period (J4B: MH II) was not placed close to the area of the EH tumulus. Later, the two Shaft Graves were placed next to each other, and were actually cut down into the debris of the EH House of the Tiles. The huge LH I cist BC3 was also placed very close to the Tumulus, although in the opposite (west) side. At the same time, sub-adult relatively 'rich' graves (D5, DC2, DE21) were placed in different areas of the settlement, not related to the EH tumulus.

The connection of specific grave groups with a standing monument, with a focal area in the settlement, shows that memory did not operate only at the level of the entire

community, but also within kinship groups, or domestic units. Memory is necessary in maintaining kin relations and claiming common descent, as I discuss in the next section.

1.9.4 Kinship and descent

In Lerna kinship seems to have been an important dimension of differentiation throughout the period under study. Its importance is indicated by the clustering of the graves, the demographic composition and the shared practices within each group, the persistence of the clusters in space and through time and their close relation to successive freestanding houses. Finally, practices of remembering the dead, although not by themselves a decisive argument for detecting kinship, reinforce the hypothesis of kinship and common descent. Each of these aspects will be discussed here.

Let me start with the positioning of graves in groups. Some of the graves in Lerna were located close together and clustered around free-standing houses. Here only the dense groups in which graves were placed in the same approximate location over a period of time and associated with particular houses have been examined. The demographic composition of these groups supports the kinship suggestion, as adults and sub-adults and both sexes were found in most of them.

Overall**,** the groups exhibit largely similar practices, because of the relative homogeneity of practices across the cemetery. However, some variation from prevailing practices is sometimes observed, i.e. these diverging practices seem to concentrate in certain groups and areas, and, what is more important, to persist through time in the same group. Those persisting mortuary practices point to coherence of and continuity within certain groups, which may have resulted from kin relations and common descent.

If we examine grave type for example, half of the MH I-II burial jars, were found in the adjacent burial groups A and B. Furthermore, group B reveals the highest frequency of cists (Fig. 86). On the other hand, the higher frequency of brick cists and semi-cists was observed in group D, while cists with horizontally placed slabs were only found in two areas, DC and BC.

If we turn to offerings, we see that the higher percentage of graves containing pottery and imported vessels was observed in groups A and B. Moreover, most of the non-pottery objects were found in group B, while the highest percentage of graves with non-pottery finds was observed in group C, followed by groups A and B. This

differentiation was present from the beginning of the period and persisted through later phases (Fig. 87, 88).

Further, the study of burial treatment within each group reinforces their coherence. Both in the early and late phases most of the 'exceptional' graves, that is graves which contain more than one skeleton, or skeletons contracted on their stomach or extended on their back, belong to the same burial group (B), while other contemporary groups do not display any of these characteristics. It is particularly interesting if an admittedly abnormal, or aberrant custom is practiced by several members of the same burial or kin group. It may imply that people act as a group, and in a way set up their own separate traditions.

Finally, if we turn to the anthropological evidence, during the MH III-LH I period, the adjacent groups B and C show relatively higher percentages of skeletons missing stress lesions (Voutsaki et al. 2013, 143). Stress lesions on the skeletons, i.e. non-specific infections, anaemia, enamel hypoplasia, result from nutritional problems during the developmental years and exposure to pathogenic agents during lifetime. It seems that the members of these two groups were less exposed to those factors.

Having examined grave clustering and shared practises inside the clusters as evidence of kin affiliations, let me now turn to the temporal and spatial persistence of the grave groups and their relation to houses. The strongest evidence supporting the significance of kinship and descent in Lerna is the spatial clustering of graves around and above free-standing houses, and the fact that this spatial relation persists through time. The opening of graves upon and among disused houses and the later building of new houses upon those graves implies a conscious decision that creates a special connection between the dead, the previous generations that had lived in the house but also with the new inhabitants of the plot, the next generation. It can be suggested that the dead acted as intermediate links between the past and the present, not only in an abstract spiritual way in but also in a very direct and material way. The ancestors were not remembered only through stories or objects (heirlooms). Their burials lay underneath the floors of the houses, while other graves were probably visible upon disused houses nearby. The ancestors were thus part of the settlement's everyday life.

Therefore, I would like to suggest that burials already in the earlier MH period were actively used for the creation of family memory, that they became focal points upon which family histories were anchored. To put it in other words, the emphasis seems to

have been placed on descent and continuity within the family, and not on social memory, i.e. memory of the community as a whole.[98]

A series of practices can be used as evidence that the dead were not simply disposed of and forgotten once laid in their graves. Although it is difficult to argue that they were only remembered by members of their own family, the prevailing practices inside the burial groups favour this suggestion.

To begin with, it has been observed that although the graves were very often located within ruined houses and that most of the grave groups were used by a group of people for centuries, very rarely does a later grave or house wall disturb an earlier grave. It is therefore logical to conclude that the position of the graves was known and that the graves were demarcated in one way or another.

Indeed, grave markers are known in Lerna and in other cemeteries. They took the form of a stele (A7) or of a stone pile upon the tomb (BE20, BE25, DE28). Although not many grave markers have been found in Lerna, we may suppose that many more existed, but have not been preserved. Evidence for markers existed already in the MH I period.

Further evidence can be presented to demonstrate that MH burials were not 'closed' events, and that they continued to operate as loci of interaction for some time after the interment. For example, there is clear evidence that some tombs were re-opened and re-used. Although only a few typical secondary burials have been found in Lerna (e.g. B24), in 20 graves some bones were missing (e.g. B25-BE18) from an otherwise intact grave, or the skeletons were disturbed. The pushed aside and the disturbed skeletons date mainly from the later part of the MH and LH I periods. In addition, in some cases disarticulated bones have been found in association with a grave or among the animal bones from the settlement strata, pointing again to secondary treatment of the skeleton. In group B for instance, graves B24-B17 (MH III)- B20A-B (MH II)- B21A-B (MH II) form a spatial group in which disarticulated bones were found outside the graves.

Another interesting practice involves the re-opening of the tomb and the placing of grave goods sometime after the burial took place. Although this is usually difficult to ascertain, in Lerna in at least one case (BD21-MH III) it is obvious from the position of the vessel that it was placed at a later date in the grave and disturbed some bones of the skeleton. In addition, the deposition of offerings outside the tomb implies that the

[98] C. Wiersma also comes to the same conclusion for the early MH, based on house data (Wiersma 2014).

grave was revisited. The placing of offerings outside the graves is certainly attested in LHI (SG1, SG2, BC3) – but ceramic offerings were found in the shaft above the grave also in some early MH graves (e.g. DE33).

Finally, the creation of memory and the maintenance of a special connection between the living and the dead may be behind a different practice. It is interesting that only half of the vases (55%) deposited in the graves were complete, whether broken or intact. The rest (36%) were incomplete. Usually about half of the body was missing; more seldom only a handle and/or some part of the rim. The rest 9% of the pottery finds are single sherds. We may suspect that the percentage of pottery sherds in the graves was higher as the sherds are only mentioned in the reports when they preserve a special feature, mainly a potter's mark. If the vases were not deposited already broken in the graves –which is of course possible-, it can be suggested that they were deliberately broken at the time of the burial, in which case some of the broken pieces may have been kept by the living (Chapman J. 2000a; Chapman & Gaydarska 2006). Such a practice creates a further link between the living and the dead – and one that is not only conceptual or symbolic, but has a certain material dimension, and is, so to speak, tangible.

To conclude, the importance of kinship was manifested by the clustering of graves, the shared features within burial groups and their persistence through time. The alternation between houses and graves in the same location may also express a concern with descent and with the transmission of property.[99] The positioning of the graves upon certain parts of the abandoned houses, i.e. cooking and storage areas, and their alignment with pre-existing walls implies that the house layout was remembered long after its abandonment. These practices stress the persistence and the fixity on the kin group. During the MH III-LH I period kin relations were further emphasised with the re-use of tombs and the secondary treatment of the body.

[99] Georgousopoulou (2004, 207-213) has observed a similar phenomenon in neighbouring Asine, which she explains as expressing claims on land. Interestingly, our comparative analysis of the Lerna and Asine data revealed that this phenomenon is much more pronounced in Lerna.

1.9.5 Change through time

Having thoroughly examined the basic dimensions of differentiation in Lerna and Myloi, let me now turn to the last question posed in this study, namely change through time. It is already clear from the discussion on age, gender, kinship and elaboration that the way these aspects were manifested and their significance changed through time. Here the focus will be on the basic characteristics of the two cemeteries and the way those characteristics changed, or did not change, through time. The main changes in the spatial arrangement of the graves, in the grave types and offerings and in the mode of disposal of the dead will be presented.

i. Spatial arrangement of the graves

In order to have a better picture for changes in the spatial arrangement of the graves in the settlement the nine EH III neonate-infant burials will be also discussed here (Blackburn, 1971, 29-32). The EH III and the EH/MH burials were found in different areas of the settlement and they do not seem to cluster in any particular area. During this early period few individuals were buried among or inside houses, in typical intramural burials.

During the MH I period many more sub-adult and adult burials were placed in the settlement. Towards the end of the MH I period, some of those burials start to form clusters associated with houses. At the same time a new practice was introduced in Lerna: the use of space moves back and forth between habitation and burial (Milka 2010). Graves were opened upon ruins of earlier houses and these graves were later overbuilt by new houses. This was one of the most important changes, which is particular to MH Lerna.

During MH II and until the transitional MH III/LH I period the clustering of graves around houses continues and expands in more areas of the settlements, thus more groups are created. The alternation between houses and burials also expands in new areas. The few graves which were contemporary with the houses belonged to neonates, while both adults and sub-adults were buried upon the ruined houses.

During MH III, however, an important change took place: the cemetery of Myloi, a typical extramural cemetery primarily preserved for adult burials, is sets up.

During LH I and through LH IIA a cemetery, which cannot really be designated as intramural, was also established upon the abandoned houses of the settlement. The alternation between houses and graves probably stops.

Moreover, during the SGE a change was observed in the age composition of burials still associated with the settlement, as sub-adults predominate. Moreover, area D was preserved for sub-adult burials, while adults were buried in other parts of the settlement. It seems therefore that during this late phase next to the tendency to bury adults on formal extramural cemeteries, a stricter spatial differentiation was applied for adults and sub-adults still associated with the settlement area.

Finally, during the early phases almost an equal number of males and females was buried in the settlement, while during the later phases more men than women have been found. This pattern may reflect gender differentiation in the spatial arrangement of the graves inside the settlement. Nevertheless, as only a part of it has been excavated this possibility cannot be checked.

We see therefore that the spatial arrangement of the graves and their relation to house was constantly changing. Moreover, the age and possibly the gender composition of the burial groups were also changing.

ii. Grave types

Next to the spatial arrangement of the graves and to the age composition of the assemblage, changes are observed in the grave types used.

During the EH III and the transitional EH/MH the few neonates-infants buried in the settlement were placed in pit graves and in burial jars. Therefore, the burial group in this period is very homogeneous.

In the following MH I period more burials were associated with the settlement and age and gender representation became wider. As a result, more diversity is observed. Burial jars were still used exclusively for sub-adults, while pit graves were now also used for adults.

During the MH II period even more burials were placed in the settlement and diversity of the grave types increased. Burial jars continued to be used for sub-adults and pits for adults and sub-adults. Furnishings (floors and covers) in pit graves first appear in the MH II period. At the same time, according to C. Zerner, the cist grave was introduced for the first time. Although a couple of infants were buried in early cists, they were primarily used for adults. In general, the sub-adult cists date later than the adult cists. Two types of cists were used during the MH II period: cists with walls formed of vertical placed stone slabs and brick cists. Covers, as well as floors, were used in the cists from the MH II.

In the MH III period burial jars were no longer used. Pits and different types of cists were used for everyone. The frequency of pits, however, declines. Pits were primarily used for sub-adults. At the same time, the use of cists steadily increased. Cists with walls formed of vertical placed stone slabs continued to be used. This type of cist was also used in the cemetery of Myloi. Grave floors and covers were more often combined during the late phases and more often in adult burials. Brick cists became more frequent. It seems that a MH III horizon existed, when the frequency of brick cists was significantly higher. Moreover, mixed type cists were used for the first time, increasing diversity further. In general, however, cists were neither bigger nor better constructed than in the previous period.

Finally, during the transitional MH III/LH I and the LH I period pits were still sporadically used, while the diversity of cists further increased. Next to the types already used, built cists are now introduced for the first time in Lerna and Myloi, where they occur only rarely. Graves of this type were the biggest and deeper cists found in both cemeteries. They had floors and covers. Moreover, during the LH I-LH IIA period two shaft graves were built in Lerna. Their construction was similar with built cists but their size was much larger. The two shaft graves, although robed, are the most elaborate grave type found in Lerna and Myloi. Their existence clearly indicates the higher degree of differentiation and diversity during this late period.

To conclude, as time passes more diversity is observed in the grave types. Although burial jars were no longer used after the MH III period, the construction of pits and cists became more diverse. In general, there was a tendency for the use of larger and better constructed grave types.

iii. Pottery

Changes were also observed in the use of pottery vessels as burial offerings.

No vessels have been found in EH III or EH/MH graves. During the MH I period, pots were deposited for the first time in graves. Vases were placed single in single sub-adult burials. Once, a part of an imported Aeginetan jar was used as cover of a burial jar.

During the MH II period the percentage of graves with pottery increased significantly. Moreover, for the first time more than one vessel was deposited in a burial. Generally, in contrast with the MH I period, during the MH II period vessels were more frequently deposited in juvenile and/or adult burials than in sub-adult burials. Most of the imported

vessels date from the MH II period. Generally, the percentage of imported vessels in the tombs is higher during the early phases of the MH period.

During the MH III and until the LH I period (SGE), overall more vessels were deposited in fewer graves. In general, the percentage of graves with pottery further increased. During these late phases pottery was primarily deposited in sub-adult burials but the adults were usually given more than one vessel. During the MH III period more than one vessel was deposited in a sub-adult burial for the first time. The percentage of imported vessels, however, steadily decreases. On the other hand, the practise of forming pottery sets begun during the transitional MH III/LH I period.

Overall, there is a tendency for standardisation of the pottery assemblage used in the burials, which seen in different aspects of pottery. For instance, as time passes small vessels were more often selected for the burials. Moreover, all the miniature vessels date from the SGE. Those vessels were more often deposited in sub-adult burials. In addition, there is a clear increase in the number of jugs used as offerings at the late phases of the period under study. At the same time, the frequency of the deposition of whole, well preserved vessels steadily increased through time. Standardization of the assemblage, coupled with standardisation of practices, is also seen in the placement of the vessels inside the grave. The skull area was more frequently selected towards the end of the period under study.

Finally, towards the later phases of the MH period more vessels were found outside or above the graves. This practice shows that more emphasis was given on commemoration and descent.

iv. Other finds

Non-pottery finds have not been found in EH III-EH/MH burials. They first appeared in burials during the MH I period. Stone and bone tools were the first objects, other than pottery, that were deposited as offerings.

Stone, bone but also terracotta tools were the more frequent non-pottery offerings in MH II as well. However, during this period new objects were introduced. Stone and paste beads, and bone and bronze rings were first deposited in the graves. Thus, more emphasis is now given on ornamentation. Moreover, bone pins and terracotta whorls were used in the burials for the first time. Finally, simple weapons, a bronze knife and an obsidian arrowhead first appear. We see therefore, that most of the offerings were

made of stone, but bronze objects were used for the first time. A more diverse and richer assemblage is now used.

During the later phases of the period under study, MH III-LH I, tools of different materials- stone, bone, terracotta- were still the most common non-ceramic category. The number of beads and the variety of their materials increased. Beads were now made of different semi-precious stones, paste, faience and bronze. Next to beads, bronze and silver rings and a silver band have been found. The emphasis on ornamentation increased. Moreover, bone and bronze pins and terracotta whorls were used. Finally, some simple stone weapons were still deposited in the graves. During this period silver objects were placed in the graves for the first time and the number of bronze objects increased. However, golden objects have not been found neither in Lerna nor in Myloi, in contrast to Asine, Argos and Mycenae.

v. Mode of disposal

Concerning the mode of disposal of the dead great homogeneity is observed through time, and only few changes have been observed. Overall, single, primary, contracted inhumations predominate through time. During the MH I period, double and multiple burials occurred for the first time, and were from then on found sporadically. Secondary treatment of the skeleton was also first practised during the MH I period. Only few cases of secondary treatment have been attested in every period, but secondary burials increase during the MH III-LH I period. The first adult skeleton found in extended position dates from the MH II period. Extended skeletons became relatively more frequent towards the end of the MH and the beginning of the LH period but they never predominate. At the same time in Myloi a high percentage of skeletons were found on extended position.

Let me summarise changes through time:

The few EH III burials all belong to infants and neonates in pits or jars, and offerings are missing.

In MH I adults are also buried among the houses. Towards the end of the MH I period, some of those burials start to form clusters associated with houses. At the same time the use of space starts to move back and forth between habitation and burial. Double and multiple burials occurred for the first time, while the first vases are deposited in

sub-adult graves, but they never exceed one vase per grave. Finally, the first bone or stone tools are also deposited.

In MH II we observe new changes. Cists may be introduced in this period for the first time. The first adult skeleton found in extended position dates from the MH II period. In addition, more graves contain vases, more vases are deposited with individual burials and vases are now also found with adults. Moreover, ornaments or simple weapons are also deposited with the dead.

In MH III the number of cists increases, while the number of pits declines. In the MH III period burial jars were no longer used. The extramural cemetery of Myloi is set up. There is no marked increase in the offerings, while the percentage of imported vessels steadily decreases. During the MH III period more than one vessel was deposited in a sub-adult burial for the first time. Moreover, the practise of depositing pottery sets begun during the transitional MH III/LH I period and at the same time built cists are introduced in Lerna and Myloi.

By LH I cists predominate in the settlement and in the extramural cemetery of Myloi. During LH I to LH IIA a burial ground was also established upon the abandoned houses of the settlement. During the SGE a change was observed in the age composition of burials still associated with the settlement, as sub-adults predominate. Moreover, during the later phases more men than women have been found in the settlement. In the same period the two shaft graves are built, but there is hardly an increase in offerings. However, the emphasis on ornamentation increased. Furthermore, silver objects were placed in the graves for the first time and the number of bronze objects increased.

We therefore do observe changes throughout the period but their rate, nature and extent change. In some aspects there is a certain ‘scaling up’ through time, but important changes can be observed already in MH I–II. In MH II the rate intensifies. Changes are also observed in the later phases but these are not accompanied by an increase of offerings and certainly not of valuables. Mortuary practices in MH III Lerna are characterized by conservativism and continuing austerity. We therefore would like to suggest that the developments in the earlier part of the period do not set in motion an increase in social complexity, at least not in Lerna (Voutsaki and Milka 2016, 104).

To conclude, the analysis of the mortuary data from Lerna and Myloi have given convincing answers to the basic questions raised in this study, concerning social

structure and change through time. Therefore, against the prevailing opinion, changes in mortuary practices in Lerna are observed already in MH I–II. There is subtle differentiation throughout the period, but status differences are not emphasized. The general austerity of the mortuary practices and the persistent differences between grave groups indicate a society organized along kin divisions. Age is another important criterion of categorization, while gender differences exist, but are less marked, at least in the mortuary sphere. In LH I there is some evidence for status differentiation, which however remains very modest when compared to other sites in the Argolid. Changes are therefore observed throughout the period, but are neither linear, nor cumulative. Moreover, the changes affect different groups (age, gender, kin and status) in varying degrees (Voutsaki and Milka 2016, 104, 113).

Mortuary differentiation and social structure in the Middle Helladic Argolid, 2000-1500 B.C.

Volume II

Cover design: Giannis Horiatakis
Production: Copy point-Nikos Vlahos
Financial support: University of Groningen

ISBN 978-94-034-1793-6 (printed version)
ISBN 978-94-034-1792-9 (electronic version)

university of groningen

Mortuary differentiation and social structure in the Middle Helladic Argolid, 2000-1500 B.C.

ELENI MILKA

CONTENTS OF VOLUME II

CHAPTER 2: ASINE

2.1 ASINE: INTRODUCTION

2.1.1 Landscape and topography

The ancient site of Asine is situated on the east side of the Argolid gulf, close to the modern village of Tolo. A rocky promontory called Kastraki protrudes into the sea.

In antiquity however, Kastraki was separated from the mainland by a channel. During the Neolithic period Kastraki was actually an island and the coastline was farther inland than today. During the Early Bronze Age environmental and cultural factors caused erosion episodes modifying the coastal landscape. Due to sediments resulted from the erosion, a beach barrier was created east of Kastraki, eventually connecting the island with the mainland. The barrier itself postdates the Early Bronze Age. To the north of the promontory, a channel connected the sea to the west, with a lake that existed at the east (Zangger 1994) (Fig. 90).

However, the exact geomorphological setting of the MH settlement is not clear. We may suppose, however, that the lake/lagoon was by then largely filled in, as the East Cemetery with Tumulus IQ was erected in this area.

During the Late Helladic and Hellenistic periods, a small islet existed north of Kastraki making access to it difficult and controllable. Today the lake has been filled with alluvium and the promontory is now connected with the inland area from north and from east.

The focus of habitation during the MH period was on Kastraki, in the area of the Acropolis and the Lower Town. During the late part of the period the lower slopes of the opposite Barbouna hill were also settled. The area to the east of Kastraki was used as burial ground from the early phases of the MH period. Here the East Cemetery with Tumulus IQ was situated.

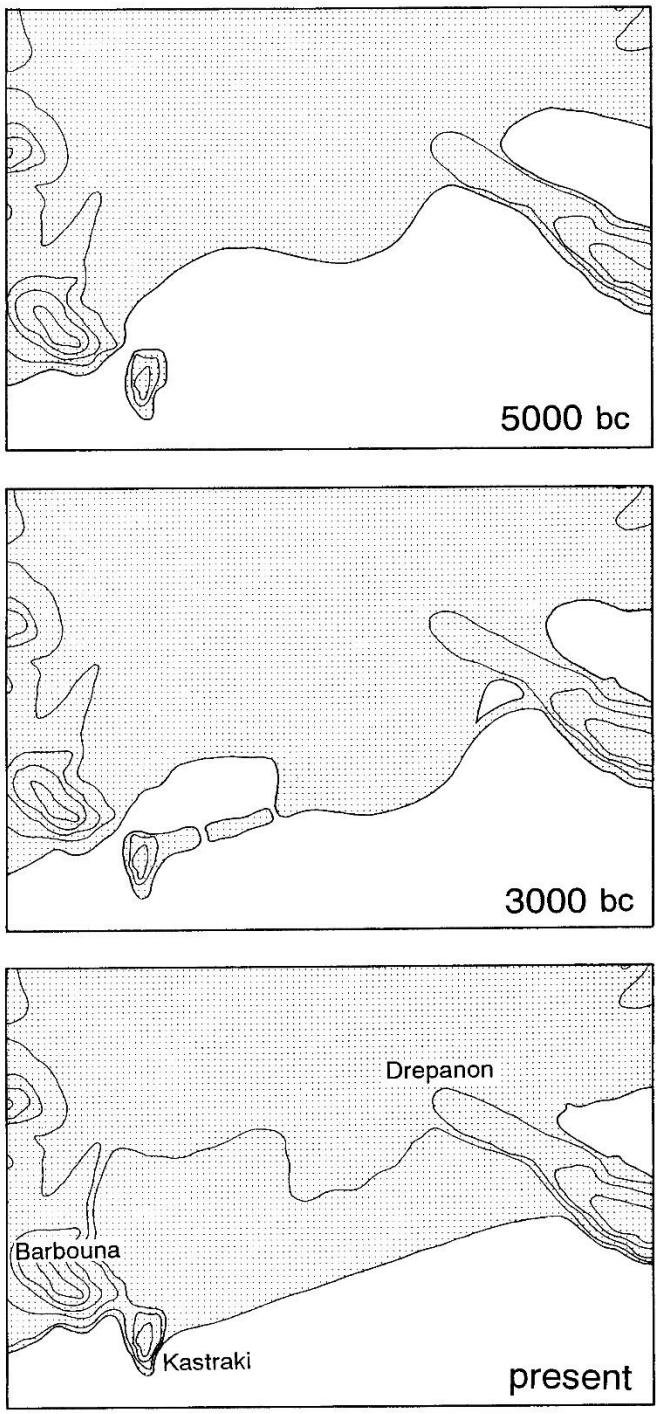

Fig. 90: Reconstruction of the shoreline at Asine (from Zangger 1994, fig. 12)

2.1.2 History of excavations and studies

Excavations at Kastraki were conducted by a Swedish team during four campaigns in years 1922, 1924, 1926 and 1930. The excavations were directed by Axel W. Persson and Otto Frödin. The results of the excavations were published by them in 1938 in the Asine series (Frödin & Persson 1938). In 1996 G. Nordquist published some new, unpublished information from the graves found in Kastraki during 1922-1930 and K.

Moberg Nilsson studied animal bones from the Lower Town (Nordquist 1996, 19-38; Moberg Nilsson 1996, 111-115). Recently, Macheridis (2016a; 2018; forthcoming) studied the complete collection of animal bones dated to the MH from Asine. The extant human skeletons have been successively and partially studied and published by Fürst (1930), Angel (1982, 105-138) and Ingvarsson- Sundström (2003, 2008).

At the area east of Kastraki a rescue excavation took place in 1969 by Protonotariou-Deilaki (1974, 74-84; 1977, 94-122), when the owner of the property decided to build camping facilities in his plot. The rescue excavations were continued during 1970-4 by the Swedish Institute at Athens under the direction of S. Dietz and C.G. Styrenius. The results of the excavations were published by S. Dietz in the Asine series (1980; 1982). The human bones were first studied in 1972 by Angel (1982, 105-138) and they were recently re-studied by Ingvarsson-Sundström under the MHAP (Ingvarsson-Sundström in Voutsaki et al. 2007, 70-76).

The lower slopes of the Barbouna hill were first investigated by Inga and Robin Hägg, during 1970-74 in a series of rescue excavations in private plots (Hägg & Hägg 1973; 1975, 151-160; Aupert**,** 1975, 617; Catling 1975, 10). They published some of the material in the Barbouna series (Hägg & Hägg 1973; 1978; 1980). Work was resumed for a final season in 1989 (Hägg & Nordquist 1992). The animal bones found in Barbouna have been analyzed by Gejvall (unpublished) and have been published preliminary by Moberg Nilsson (1992, 111-115)[100]. Most of the human skeletons were first studied by Angel (1982, 105-138) and recently re-examined by Ingvarsson-Sundström (in Voutsaki et al. 2007, 70-76). The final publication of the site is in preparation by G. Nordquist (n.d.(a); n.d. (c)).

Finally, G. Nordquist (1987) has published a synthetic work presenting settlement and burial data from all three sites, Kastraki, Barbouna and the East Cemetery.

2.1.3 Chronology

The excavations at Kastraki revealed that the site was constantly inhabited during the Early, Middle and Late Helladic periods, while a few Neolithic finds have also been found. Furthermore, Iron Age habitation and a substantial Hellenistic settlement with fortification walls, still visible today, were found. There is also a Roman bath (Frödin & Persson 1938).

[100]Appendix in Hägg and Nordquist 1992, 66-68.

On the Barbouna hill, habitation and burial use was established during the transitional MH II/III period. Few Neolithic finds have also been found here. Upon the MH settlement Mycenaean houses, dating from the LH IIA period onwards were erected. In the vicinity of the late MH settlement and cemetery, a rich Mycenaean chamber tomb cemetery, a Geometric necropolis and a temple of Apollo were located (Hägg & Hägg 1973; 1978; 1980; Hägg &Nordquist 1992).

At the region east of Kastraki the existence of quite abundant EH/MH (MH I) material, although in a restricted area, indicate that habitation of the plain had started at an early time (Dietz 1980, 122).

On the other hand, the area where the MH II-LH II East Cemetery and the Tumulus IQ were erected was probably uninhabited before. Contemporary with the latest graves, a LH I habitation was established north of the cemetery. After the cemetery went out of use, LH IIIA1 buildings were erected above it (Dietz 1980, 71-72). The use of the area continued through the Protogeometric and Geometric period, while Hellenistic remains were found near the surface (Dietz 1982).

The MH habitation and burial strata of the three areas at Asine were divided according to the tripartite system followed for the MH era, MH I, MH II, MH III. No special phasing system of the excavated strata was applied.

In the following chapters burials placed in Kastraki, in the East Cemetery and in Barbouna will be analyzed and discussed separately.

2.2 KASTRAKI: THE CEMETERY

2.2.1 Introduction

The excavated part of the Kastraki promontory is divided into two main areas, the Lower Town and the Acropolis (Fig. 91). These areas are further subdivided into a series of terraces (Fig. 92). The focus of habitation during the MH period was in the Lower Town.

The published tombs from the Lower Town were numbered in parallel series for each period, which is indicated before the grave number (e.g. MH6, LH6). Three tombs which could not be dated with certainty to any of the EH or MH periods were referred to the MH series and they were placed first in the sequence (MH1, MH2, MH3) (Frödin & Persson 1938, 115-6). The tombs in the Acropolis (MH107-MH111) were later added in the list of the MH graves from Kastraki (Nordquist 1987, 134). During the excavation, however, a different numbering system was applied. In each trench the graves were numbered separately e.g LT, East extension, grave 3. Here, the numbering applied in the publication will be followed (e.g. MH98).

In total, 110[101]graves have been excavated and published from Kastraki.[102] However, more graves must have existed (Nordquist 1987, 91). Already in the first publication of the graves it was mentioned that many children graves were probably overlooked during the excavation (Frödin & Person 1938, 115). Recently, Ingvarsson-Sundström's study of the disarticulated human bones found in stratigraphic settlement contexts confirms the existence of many more, mainly, sub-adult tombs[103] (2003; 2008).

[101] MH52-MH53: double burial. Counted here as one grave.

[102] Ingvarsson- Sundström (2003, 49) adds 4 more sub-adult graves (Gr.96, MH/LH, Terrace III; Gr130?, EH/MH; Terrace III; Gr.1 (east), MH or later, Large Trench-East extension; Gr.1 (east), MH or later, Large Trench-East extension); these graves are not included in the analysis here.

[103] The examined material belongs to 103 sub-adults and 36 adults.

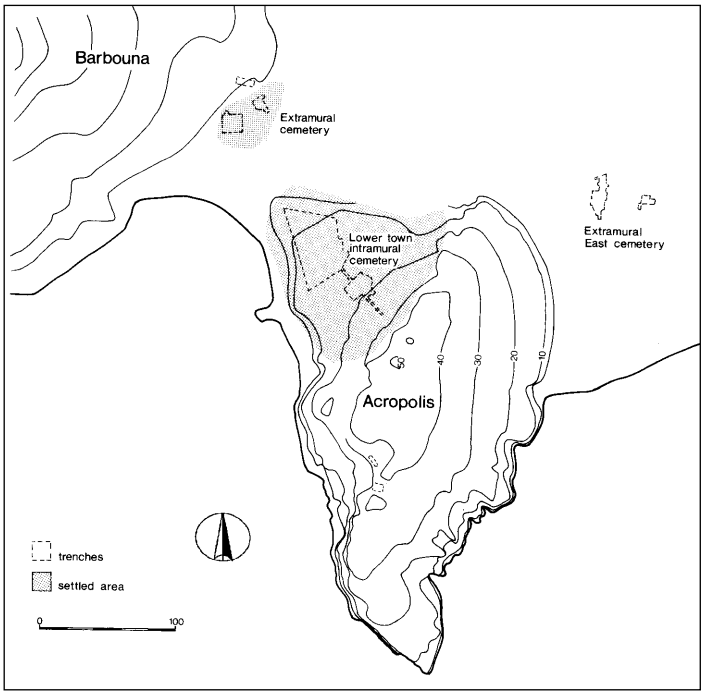

Fig. 91: The Kastraki promontory and its surroundings (from Nordquist 1987, Fig.8)

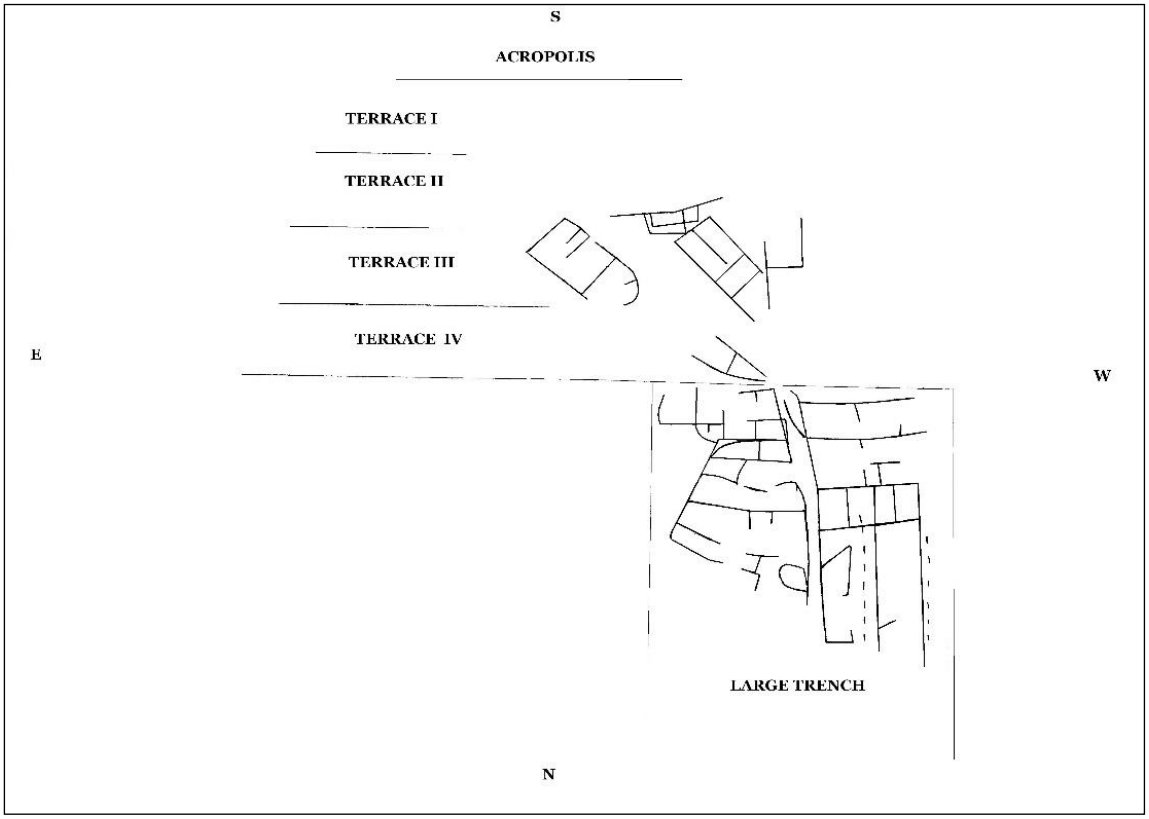

Fig. 92: schematic plan of the different areas at Kastraki

2.2.2 Dating

A relative dating is available for only half of the graves (58) (Frödin & Persson 1938, 115-128; Nordquist 1987, List of graves; 1996, 19-38; Macheridis 2017, 133). Their dating was based either on diagnostic offerings found in them, or on stratigraphic observations. The remaining half is missing offerings and/or its stratigraphic position is unclear. Those graves are generally dated to the MH period (Table 102).

As a result, the chronological analysis of various features and the study of change through time are seriously hampered. To facilitate the observation of patterns and tendencies inside the small group of dated graves a general distinction between early -EH/MH-MH I-MH II- and late -MH III-MH III/LH I- graves will be usually followed.

Date	No of graves	
EH/MH	**3**	**Early phases 37 graves**
MH I (also MH I/II and MH I-MH II)	**15**	
MH II (also MH II/III)	**19**	
MH III	**18**	**Late phases 21**
MH III/LH I	**3**	
MH	**52**	
Total	**110**	

Table 102: number of graves in each phase

2.2.3 Grave location

The cemetery at Kastraki is usually characterized as intramural, that is the graves were found side by side with houses. However, although the tombs were opened into the settlement area 'the question of contemporaneity between the houses and the graves in the LT remains questionable in many cases...' (Nordquist 1987, 95). As it has been noticed by Nordquist: '…the graves often seem to have been placed in areas of the LT that at the time of the burial may have been used as waste land or grazing areas within the settlement' (Nordquist 1987, 95). What was not emphasized enough by Nordquist, however, was the fact that this "waste land" was the area of abandoned houses. I will return to this point later.

The Acropolis area on the other hand, was mainly used as refuge and look-out area during the MH period and only scanty MH architectural remains have been found there (Nordquist 1987, 69, 91). Consequently, the graves that were opened here were placed in an area mainly reserved for use other than habitation. However, they are characterized as intramural and they are not distinguished from the burials found in the LT (Nordquist 1987, 91).

Here, as with the other sites, an attempt was made to relate the graves with particular houses and to examine whether the graves were earlier, contemporary or later than the houses. This work was based on the published plans showing the spatial relation between houses and tombs and on Nordquist's comments (Nordquist 1987; 1996) about the spatial context of some of the graves. The attempt was, however, seriously hampered by the uncertain dating for many graves.

A. LOWER TOWN

LARGE TRENCH

The Large Trench was situated at the northern part of the LT and it was formed by a series of trenches excavated between 1922 and 1930 (Nordquist & Hägg 1996, 11-12). A lot of graves and the most substantial MH architectural remains were found in this area (Frödin & Persson 1938, 59-90) (Table 103). The area was divided into a west and an east part separated by a lane (Fig. 96).

West part

- The earliest features in this area were three adult burials (MH1, MH2, MH3) which preceded the construction of House pre-D (Fig. 93). Although these three graves could not be securely dated to one of the EH or the MH period, they may be the earliest tombs found at Kastraki.

At Lerna, although a double adult burial may belong to the earliest phase of the MH period the earliest securely dated graves belong to neonate-infants (EH III and transitional EH/MH). Adult burials, however, are found already in the MH I period (see chapter 1.3.1).

- During the early part of the MH II period House pre-D was erected in the west part of the Large Trench (Fig. 93). Three parallel walls are the only remains preserved of this house (Frödin & Persson 1938, 63, 88; Nordquist 1987, 76; Voutsaki 2010; Wiersma 2013, 121-123, 470). Two sub-adult burials, MH6 and MH16, were

possibly associated with this house. MH6 is possibly dated from the MH I-II period. It was found under wall 28 of the later House D. However, a gap existed at this point in the wall making it possible that the grave was dug from above the level of House D (Nordquist 1996, 21). MH 16 possibly dates to the MH II period. It was found below the stone floor of room XX, House D. Consequently, it may have been contemporary with or later than House pre-D.

- House pre-D was replaced during the late part of the MH II period by the House, or rather House Complex, D (Frödin & Persson 1938, 72-73, 88; Nordquist 1987, 79-83; Voutsaki 2010; Wiersma 2013, 124-125, 474). This house was in use until the early MH III period and it was abandoned at about the same time as House B at the east part of the Large Trench and the houses at the Barbouna slope (see chapter 2.10). House D consisted of two parallel apartments, oriented NW-SE, and a third along the back/ south part of these two, oriented NE-SW (Fig.94). There is no evidence of communication between the three parts, which may have consisted of three different houses. Eight graves are associated with the east part of the house complex. Six of them (MH5, MH7, MH9, MH10, MH13, MH14) date to the transitional MH II/III period and may have been contemporary with the house. They belonged to one adult and five sub-adult individuals. The sub-adult graves were opened in the area of Room XIX, while the adult grave was opened in Room XV. However, the possibility cannot be excluded that some parts of the house complex went out of use earlier than others and that they were used from then on for other purposes, included burial. In any case, it is rather unusual to find so many graves inside a house still in use. Two MH III sub-adult burials (MH11, MH12), on the other hand, were clearly opened above the ruins of the house, again in the area of Room XIX.

Four other graves were opened in the west part of House D. Two of them, one adult (MH15) and one sub-adult (MH36), date to the transitional MH II/ III period and may have been contemporary with the house. Both were opened in Room XX. During the MH III period one more adult grave (MH31) was opened in the area of Room XX, after the house went out of use. In the same period, a sub-adult burial (MH35) took place in the area of Room XVIII. The grave was found bellow the clay floor of the room but is not clear from which level the grave was opened.

Graves were also opened in the area of the courtyard west of the house, probably after the house complex went out of use. In total four graves (MH29, MH32, MH33, MH34)

dating from the MH III period have been found in this area. All but one (MH29: adult and neonate?) belonged to sub-adults.

Interestingly, no graves were opened inside or above the back/south part of House D, which, as will see bellow, was overbuilt by another house. The complete absence of graves at this area is a strong indication that graves at Kastraki were mainly opened at areas left free from habitation, rather than inside houses still in use or in areas that were reserved for later habitation use.

- During the late part of the MH III period House E was erected in the area south of House D (Fig. 95) (Frödin & Persson 1938, 73-74, 88; Nordquist 1987, 83-85; Voutsaki 2010; Wiersma 2013, 126-127, 480). Only the south/back part of House D was overbuilt by House E, which was in use until the transitional MH III/LH I period. The rest of the area to the north, above the ruins of House D, formed an outdoor area where, as we have seen, burials took place.

About 15 graves were associated with House E. These graves cluster in the area of Room XXIII (12 graves), while two graves were found in or above Room XXII and one in the area east of the house. No graves have been found in association with the remaining rooms (XXIV, XXV).

The earliest of the graves found in the area of Room XXIII was MH54 dated from the transitional MH II/III period. The grave was found below Wall 42 thus preceded the construction of House E. Grave MH42 dating probably from the MH III (?) period post-dated the room as it was opened in Wall 44. The same probably holds true for another MH III grave, MH44, the digging of which disturbed the house floor. The remaining graves of this room (MH39:?, MH40:?, MH41:III?, MH44:III, MH45:?, MH46:III, MH51:III, MH52-53:III, MH55:III?) may have been contemporary with or later than the use of the house. However, the high density of graves in one room makes it more possible that the graves post-dated its use. Nevertheless, some of them may have taken place while the house was still in use. With the exception of the double adult burial MH52-53 all the other burials in this area were sub-adult, mainly neonate, burials.

Two graves were found in the area of Room XXII. The adult burial MH4 dates from the transitional MH III/LH I period and post-dated the house. The dating of the infant burial MH50 is unknown but the two graves, MH4 and MH50, were found in the same level. Finally, the chronological relation of the possibly adult burial MH47 found in the area east of the house with House E is unknown, as no dating is available for this grave.

To sum up, at the west part of the Large Trench the use of space alters between habitation and burial already from the earliest phases of the MH period. Graves were usually opened upon abandoned houses, although some of them, mostly sub-adults, may have been contemporary with the houses. Moreover, graves seem to cluster in certain rooms of the houses and they are not evenly dispersed above them.
We can already note that this pattern differs from what we have observed in Lerna, as houses in this part of the settlement at Kastraki were not rebuilt in the same location shortly after their destruction or abandonment.

East Part

- During the early part of the MH II period House A was erected at the SE area of the Large Trench, at the same time that House pre-D was occupied at the west part of the lane (Fig. 93) (Frödin & Persson 1938, 68, 88; Nordquist 1987, 75-76; Voutsaki 2010; Wiersma 2013, 121-123, 470). The house was much disturbed by later building activity. A series of MH I/II-MH II graves may have been contemporary with or later than the house (MH38:I/II, MH48:I/II, MH49:I/II, MH24:II, MH56:II). These graves were mainly dug in the area of Room II (MH48, MH49, MH56) and occasionally in the area of Room I (MH38) or in the area east of the house (MH24). Only sub-adult burials took place in the area of Room II, while in Room I and in the east area outside the house adult burials have been found.

Grave MH21 dating from the transitional MH II/III period and grave MH22 of unknown dating post-dated the house as they were dug upon Wall 2. In MH21 a YA male and in MH22 a neonate were buried.

- After House A went out of use, House B was built in the area just north of it (Fig. 94) (Frödin & Persson 1938, 68-69, 88; Nordquist 1987, 76-79; Voutsaki 2010; Wiersma 2013, 124-125, 472). Once more, the older house and the graves were not immediately or shortly overbuilt by a new house. House B dates from the late MH II period and remained in use until the early MH III period. It was in use at the same time as House D at the west part of the lane. Although House B occupies an area of 110m^2 (external measurements) only two graves have been found here (Nordquist and Ingvarsson- Sundström 2005, 161). The jar burial MH17 was found under Room VIII and it is earlier than the house, as it

dates from the MH II period. The probably adult burial MH8 was found under a pebble courtyard at the north of the house and might have been earlier than or contemporary with the house, as it dates from the MH II/III period. Interestingly, graves were not opened upon the house after its abandonment.

- During the MH III period House C was built in the area previously occupied by House A (Fig. 95) (Frödin & Persson 1938, 70-72, 88; Nordquist 1987, 83; Voutsaki 2010; Wiersma 2013, 126, 478). House C was in use at the same time as House E at the west part of the lane. Three graves that were securely associated with the house post-dated its use (MH18: MH III/LH I, MH20: MH III, MH23: MH III/LH I). MH20 and MH23 were adult burials, while MH18 was a sub-adult burial. Four un-dated graves, which were found in the area occupied by Houses A and C, cannot be securely associated with one of the two houses (MH19, MH26, MH27, MH28).

To sum up, a strong contrast between the east and the west side of the Large Trench concerning density of graves has been observed, especially during the late MH II-MH III period. The burial use of the west part was much more intense. In the east part burials took place in and/or above the southern houses (House A and C), while the area of the northern House B was not used for burials.

In the east part of the Large Trench some graves were opened upon abandoned houses already during the early MH II period, while others, mainly sub-adults, may have been contemporary with the houses. The MH III/LH I graves were, once more, opened upon ruins.

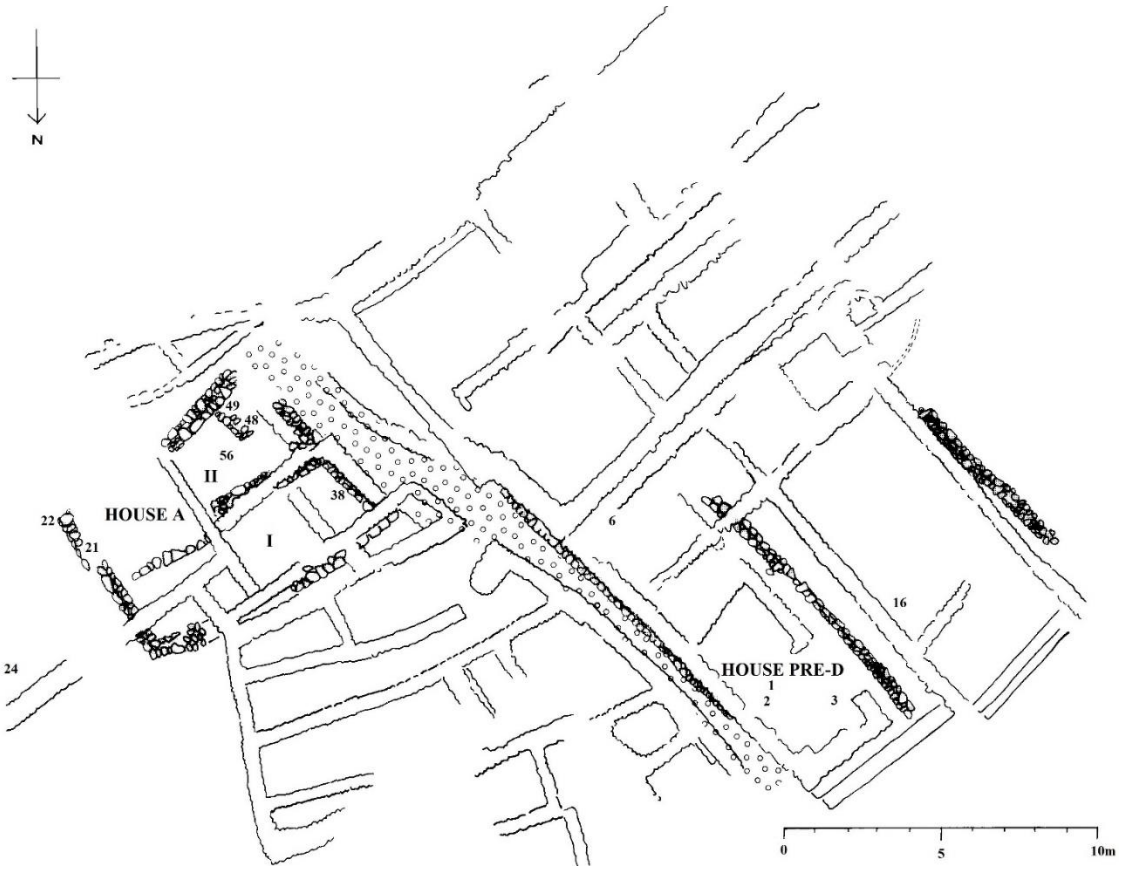

Fig. 93: Large Trench. Plan of MH II houses and related graves. The position of the graves is indicated by numbers (after Nordquist 1987, Fig.13).

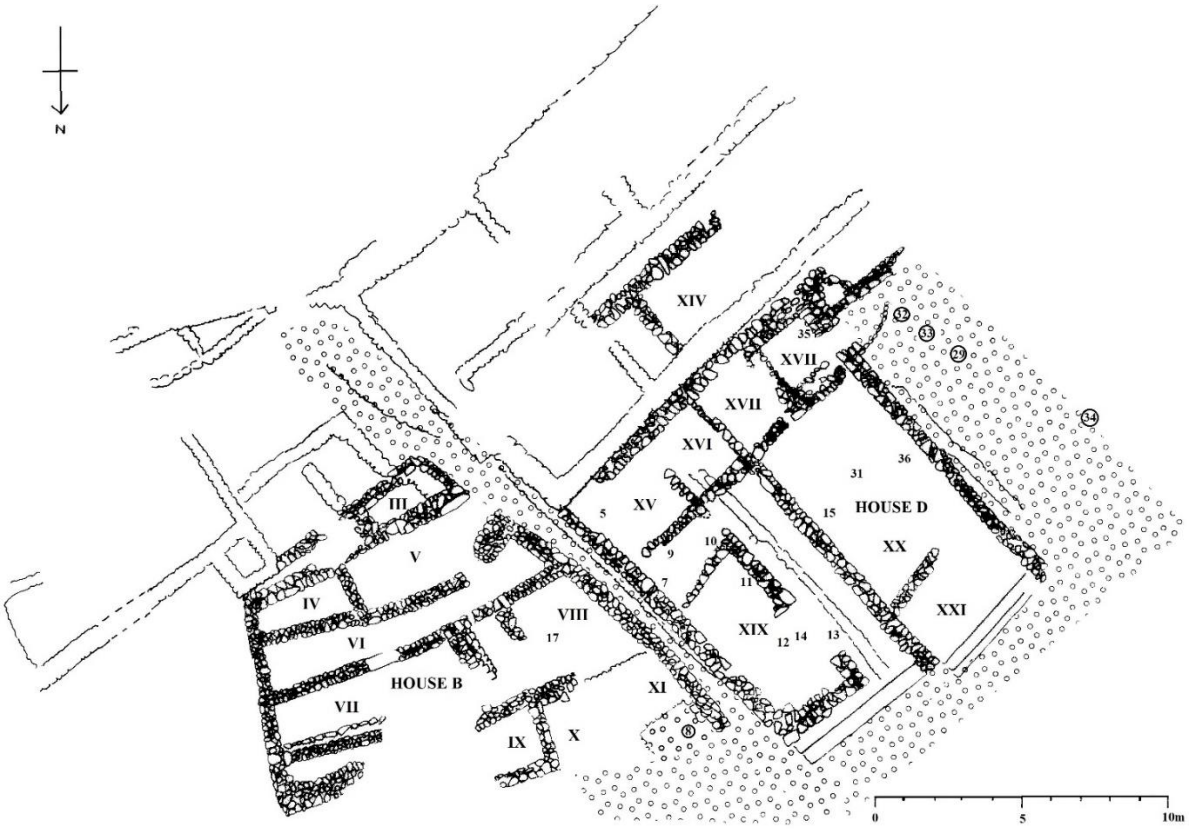

Fig. 94: Large Trench. Plan of early MH III houses and related graves. The position of the graves is indicated by numbers (after Nordquist 1987, Fig.14).

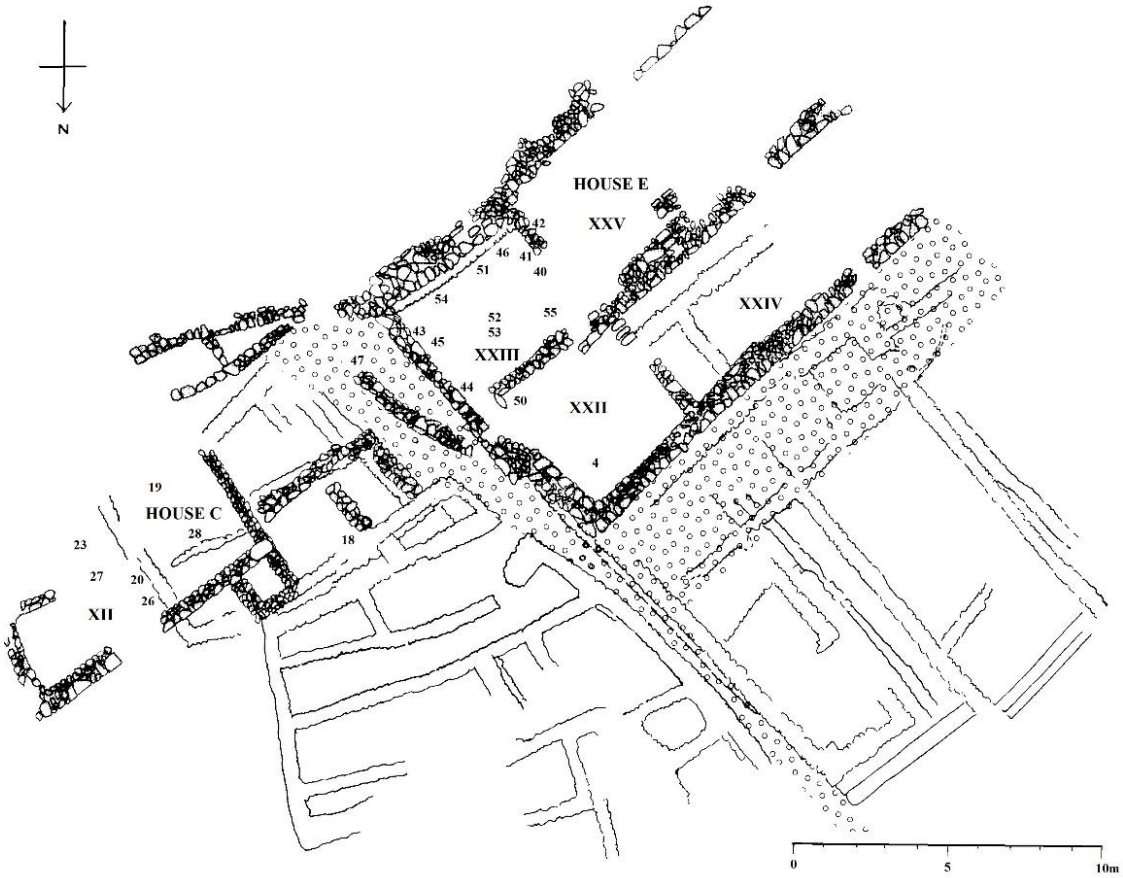

Fig. 95: Large Trench. Plan of late MH III houses and related graves. The position of the graves is indicated by numbers (after Nordquist 1987, Fig.15).

Fig. 96: Large Trench. General plan of architectural remains. The position of the graves is indicated by numbers (after Frödin & Persson 1938, Fig. 42)

TERRACE III

Terrace III of the LT was excavated during 1926 and 1930 (Nordquist & Hägg 1996, 11-12). Terrace III is situated between terrace II and terrace IV, whist is just south of House A at the Large Trench. It is the third terrace counting downwards from the Acropolis (Fig. 92). This area was inhabited from at least the EH II period (Table 103) (Nordquist 1987, 71). Although a lot of graves have been found here, a dating is available for only a couple of them. As a result, the study of the chronological relation between houses and graves is problematic.

- House R was erected during the EH II period (Fig. 97) (Frödin & Persson 1938, 91-92, 94; Voutsaki 2010; Wiersma 2013, 121). After it was abandoned, the area was left opened and it was used for burials. In total, 20 MH graves have been associated with the ruins of House R. Two of them (MH57, MH92) date to the MH I period and two (MH66, MH80) date to the MH II period. The remaining graves generally

date to the MH period. Nevertheless, all 20 post-dated the house. Sub-adults, mostly neonates, and three adults (MH80, MH81, MH84) were buried in this area.

- During the transitional EH III/MH I House S, which had a rectilinear plan, was built SW of the earlier House R (Fig. 97). The house is only partially preserved (Frödin & Persson 1938, 91-92, 94; Nordquist 1987, 71-72; Voutsaki 2010; Wiersma 2013, 121, 466). Three graves are associated with it. MH61 and MH62, both adults, were found in the area of Room IV, where a pithos was also found. However, MH61 preceded the construction of the house (Nordquist 1987, 95), although it dates to the early part of the MH I period. A precise dating for MH62 is not available. MH59 dates also from the early part of the MH I period but it was opened outside the house (NE area). It could have been earlier from, contemporary with or later than House S. In any case, it is earlier than House T of the next phase. In all three graves adult individuals were buried (once a neonate was buried together with MA male (MH62)). House S was contemporary with at least some of the burials placed upon the EH II House R.
- During the MH I- early MH II the rectangular House T occupied the area between the earlier Houses R and S (Fig. 97) (Frödin & Persson 1938, 91, 93-94; Nordquist 1987, 72-74; Voutsaki 2010; Wiersma 2013, 121, 466). Once again rebuilding in the same plot is not observed. Two graves are securely associated with this house. The neonate burial MH70 dates from the MH I period and may have been contemporary with the house. It was opened at the SE corner of Room VI on top of the EH III-MH I bothros 7, after the last was filled in (Macheridis 2016b, 77).[104] Room VI probably had a storage function. The adult burial MH58 was found upon the stone floor of Room VII. It was opened from a higher level, after the house went out of use (Nordquist 1987, 95). This was the only grave opened upon the ruined house. It seems therefore that not all abandoned houses were turned to burial places, at least not with the same intensity. Finally, the double adult- neonate burial MH60 was dug upon bothros 2, in an open area south of House T during the early MH I period (Macheridis 2017, 133) and it could have been contemporary with the house.

[104] Macheridis (2016b, 77, 88) mentions that graves have also been dug in bothroi 9 and 13, in the open area between Houses T and U, in Terrace III but she does not name them. She probably refers to grave MH 65-bothros 9 and graves MH 64, MH 67, MH 89-bothros 13 (see Macheridis 2018, Fig.6). She also mentions that bothroi 4, 8, 10, 11 and 14 are in close proximity to graves. She believes that the placement of so many graves in and around bothroi in Terrace III might not be random.

Nevertheless, House T was probably contemporary with some of the burials placed upon the EH II House R.

- A couple of undated graves which were found outside the SE corner of House T cannot be securely associated either with House T or with the later House or Room U (Fig. 97). Neonates (MH64, MH65, MH67, MH89) and an adult together with a sub-adult were buried in this area (MH90).
- Finally, House, or rather Room, U was built at a later time (MH II-MH III) just to the east of House T and partly upon its SE wall (Fig. 97).[105] The room might have had a storage function (Frödin & Persson 1938, 91, 93, 95; Nordquist 1987, 74; Voutsaki 2010; Wiersma 2013, 121, 468). Eight graves were opened in the area of this room but their chronological association with the architectural remains is unknown, as all of them are undated. The high concentration of graves in restricted area (2.75x1.25m) makes it more possible that they post-dated the use of the room. Sub-adults (MH71, MH72, MH73, MH75, MH88, MH91, MH93) and one adult (MH74) were buried there. During the LH period House U and the graves associated with it were overbuilt by House, or Room, W (Fig. 97) (Frödin & Persson 1938, 91, 93, 95; Voutsaki 2010).

To sum up, the burial use of former habitation areas is attested in Terrace III as early as the transitional EH/MH period and continuous until the later part of the MH. Graves were opened in areas left free of habitation, either outside houses still in use in courtyard areas either, more often, upon earlier ruined houses. Only a couple of them may have been opened inside houses, while the later were still in use. What is important is that not all abandoned houses were used with the same intensity as burial grounds. The same pattern was observed in the Large Trench of the LT.

In Lerna, although the house plans are more fragmentary, due to partial excavation, there are some evidence that not all parts of the houses were turned to burial grounds, e.g. the main apsidal structure of House Complex 98A (see chapter 1.2.3).

[105] The room could not be dated with certainty as its layers were seriously disturbed by the digging of the graves (Nordquist 1987, 16).

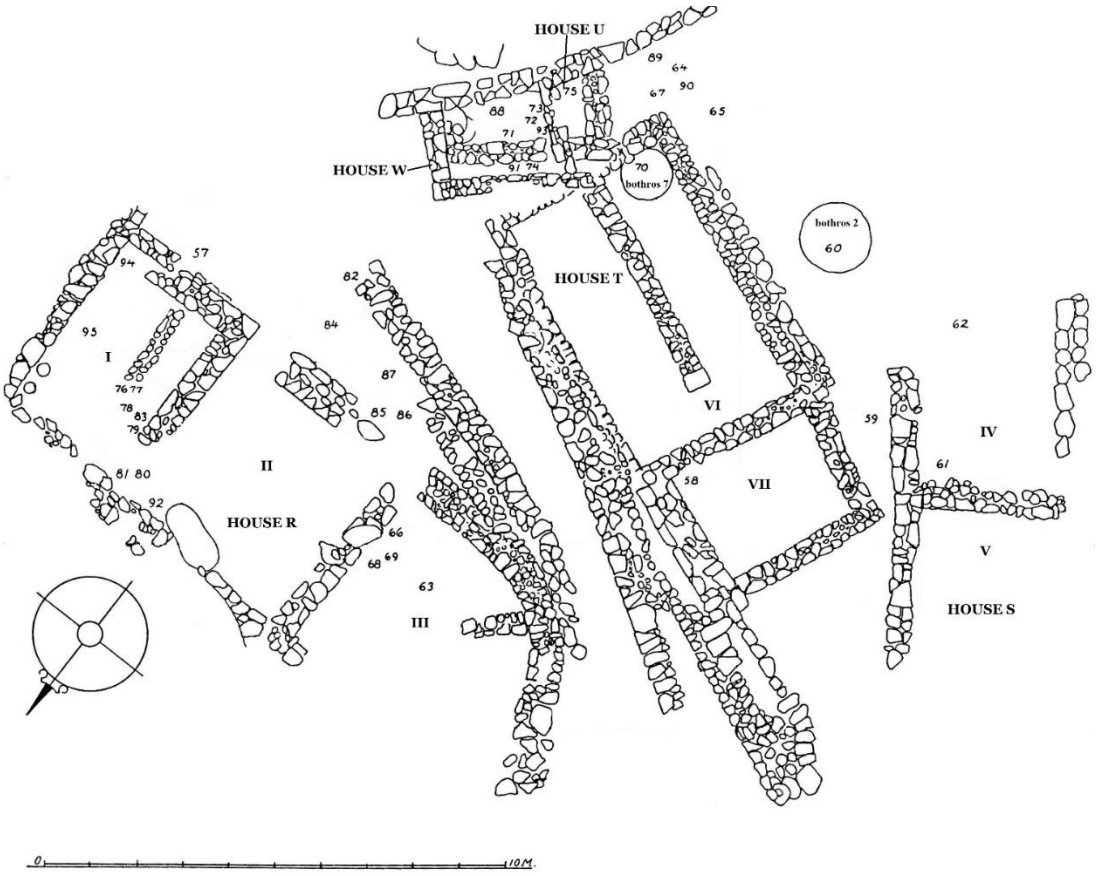

Fig. 97: Terrace III. General plan of architectural remains. The position of the graves is indicated by numbers (after Frödin & Persson 1938, Fig. 68)

Terraces I-II

Terraces I and II were the upper two terraces of the LT (Fig. 92). They were excavated in 1922 and 1926 (Nordquist & Hägg 1996, 11-12).

- The MH remains in Terrace I consisted only of some terrace walls and no traces of houses or graves were found there (Fig. 98) (Nordquist 1987, 69)[106].
- In Terrace II, next to terrace walls, architectural remains of at least two MH rooms and eight graves have been found (Table 103) (Fig. 98). The two rooms (Room 1 and 2) date to the MH II period and they were contemporary with House A and House pre-D in the Large trench (Nordquist 1987, 69-71; Voutsaki 2010c; Wiersma 2013, 468). Six adult burials date to the MH

[106] No graves have been found in Terrace IV, south of House A either (the SW corner of House A is incorporated in this terrace). However, Terrace IV was not fully excavated and described making further analysis impossible (Nordquist 1987, 75).

I-MH II period.[107] The wall system in this terrace is therefore later than the graves (Nordquist 1987, 95). Two neonate graves on the other hand might have been contemporary with the architectural remains as one dates to the MH II-III period (MH102) (Macheridis 2017, 133) and the second (MH103) remains un-dated.

We see therefore, that in this part of the settlement the adult MH I-II graves were placed in an uninhabited area at the outskirts of the settlement and they were later overbuilt by houses. This pattern resembles the area of House pre-D in the Large Trench, where three early adult burials were placed in an uninhabited area and they were overbuilt by the early MH II House pre-D. In Lerna similar pattern has not been observed.

[107] In graves MH98 and MH101 neonate bones were found together with the adult skeletons (Ingvarsson-Sundström 2008, 35).

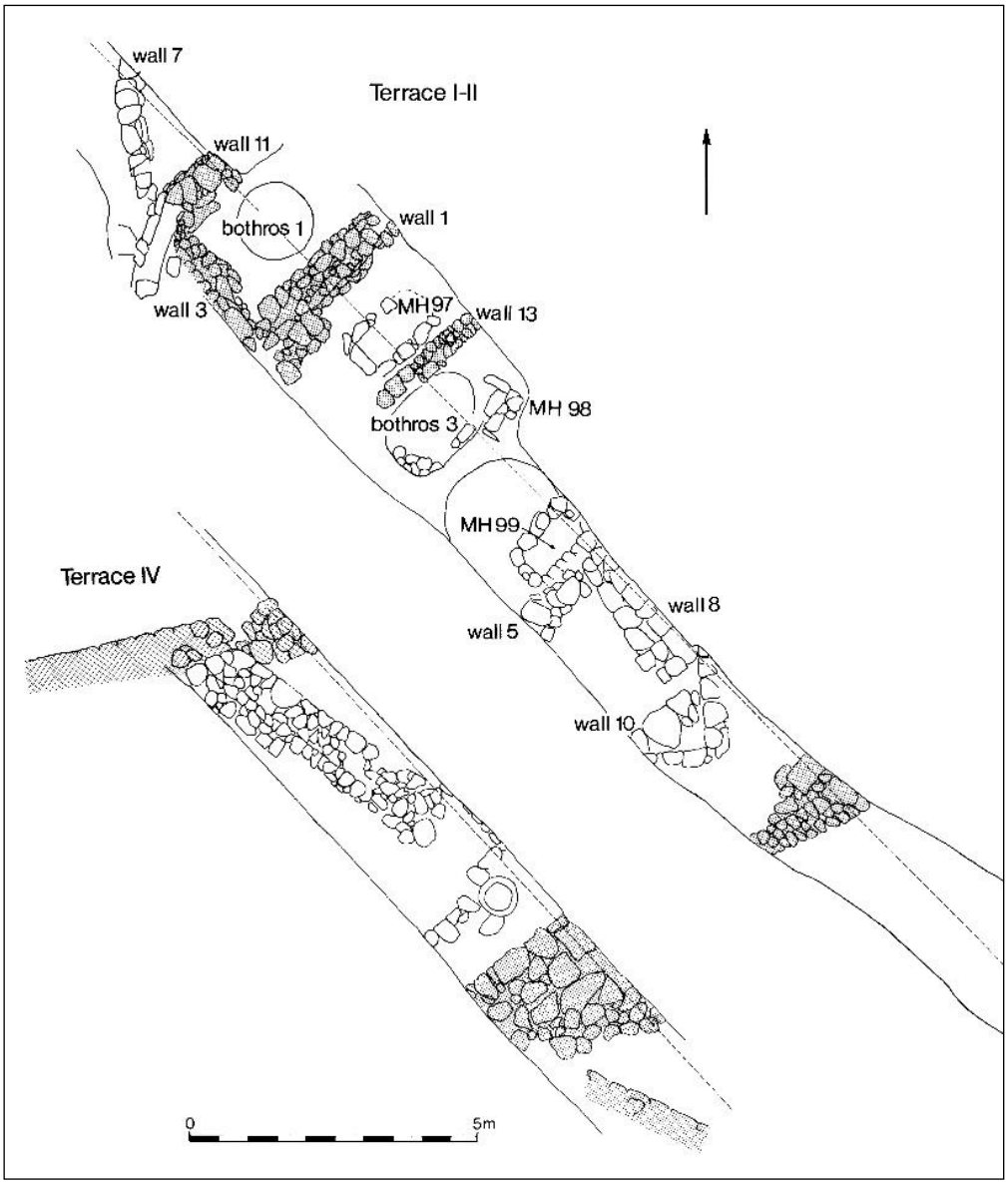

Fig. 98: Terraces I-II and IV. General plan of architectural remains. Only three of the eight graves are illustrated (from Nordquist 1987, Fig. 68).

B. ACROPOLIS

Geometric Terrace

The Geometric Terrace was situated on the Acropolis (Fig. 92) (Frödin & Persson 1938, 39-40).[108] It was excavated in 1922 (Nordquist & Hägg 1996, 11).

- Possible MH foundations together with early MH and EH III pottery have been found here. Two adult burials (MH107, MH108) have also been found in the same area (Fig. 99). MH107 dates from the MH III period and post-dated the architectural remains. The same may hold true for grave MH108, which was found close together with MH107 (Frödin & Persson 1938, 40; Nordquist 1987, 69).

It seems therefore that in this area adult graves were opened upon abandoned houses, at the periphery of the settlement.

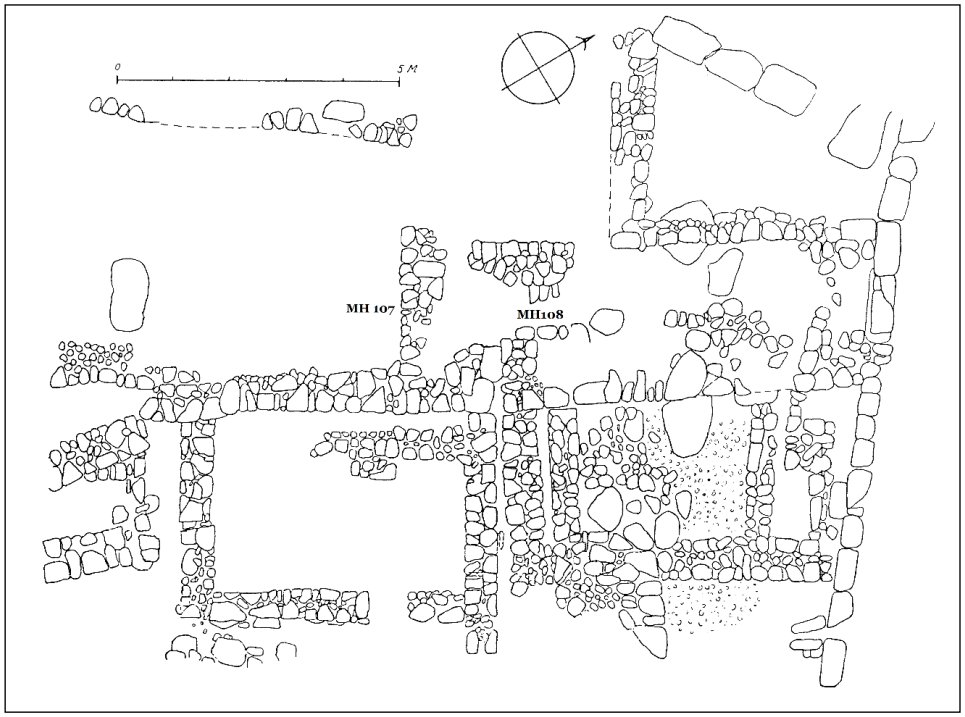

Fig. 99: Geometric Terrace on the Acropolis. General plan of architectural remains. The approximate position of the two graves is illustrated (after Frödin & Persson 1938, Fig. 20).

[108] Frödin & Persson 1938, 40: 'further in the NW and W of the places here mentioned (Geometric installations) are seen the remains of house foundations from MH times…' and 'In its (Geometric house) western part have also been discovered a couple of tombs' (MH 107-108).

Pre-Mycenaean Terrace

The Pre-Mycenaean Terrace was also situated on the Acropolis (Fig. 92) (Frödin & Persson 1938, 42-43). It was excavated in 1924 and 1926 (Nordquist & Hägg 1996, 11-12).

- EH houses and possible MH floors were found in this area. The adult burial MH109 was found in association with one of these floors[109] (Frödin & Persson 1938, 42-43; Nordquist 1987, 69) (Fig. 100). However, the chronological relation of the two features is unknown. What is important is that once more an adult burial was placed at the periphery of the settlement.

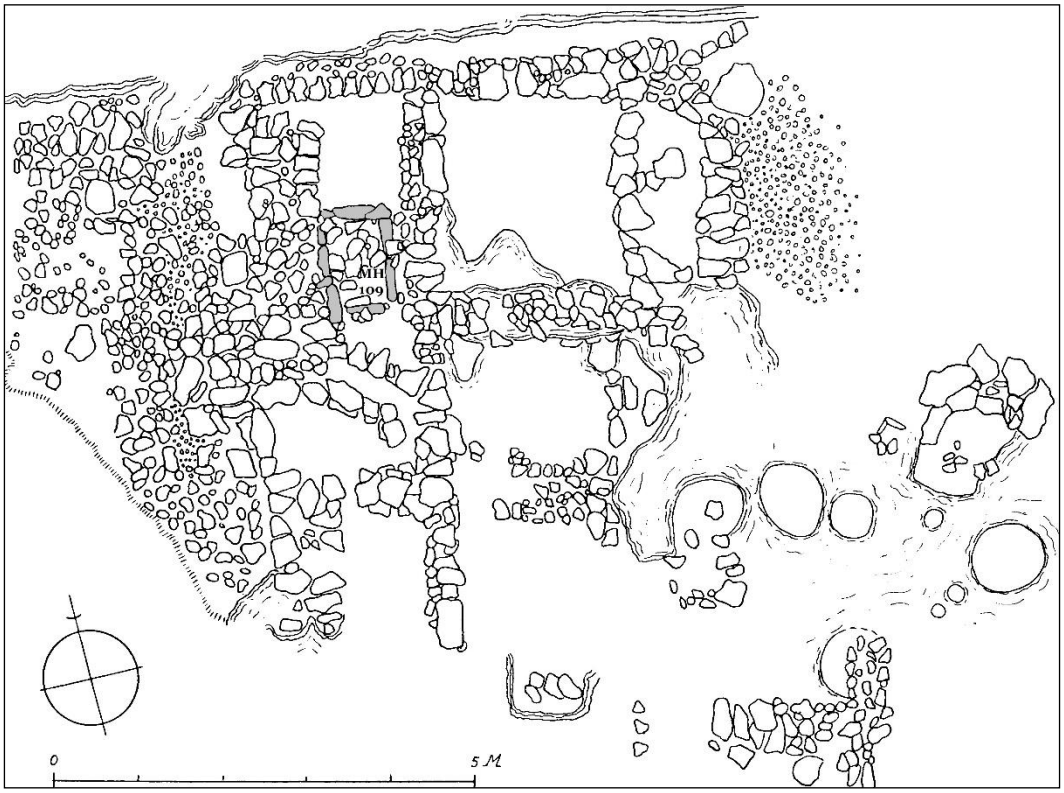

Fig. 100: The pre-Mycenean terrace on the Acropolis. General plan of architectural remains and the MH grave (after Frödin & Persson 1938, Fig. 21).

Polygonal Wall Terrace

This terrace was also situated on the Acropolis (Fig. 92) (Frödin & Persson 1938, 44-45). It was excavated in 1922 and 1926.

[109] Frödin & Persson 1938, 42-43: '…amongst the EH house foundations in the NW…' (MH109).

- Two undated MH graves (MH110, MH111) were found in this area (Frödin & Persson 1938, 44-45; Nordquist 1987, 69). They were opened upon EH houses (Fig. 101). MH110 belonged to a sub-adult individual, while the occupant of MH111 is unknown.[110] MH110 is the only sub-adult burial found in the acropolis. It should be noted however, that the skeleton has not been studied by an anthropologist and age estimation is approximate. Moreover, we cannot establish whether burying a sub-adult in the acropolis was an early or late development as the grave is undated.

To conclude, on the Acropolis primarily adult graves were placed upon earlier architectural remains. Therefore, we can already point out here that the division "intra' and "extramural" graves is problematic.

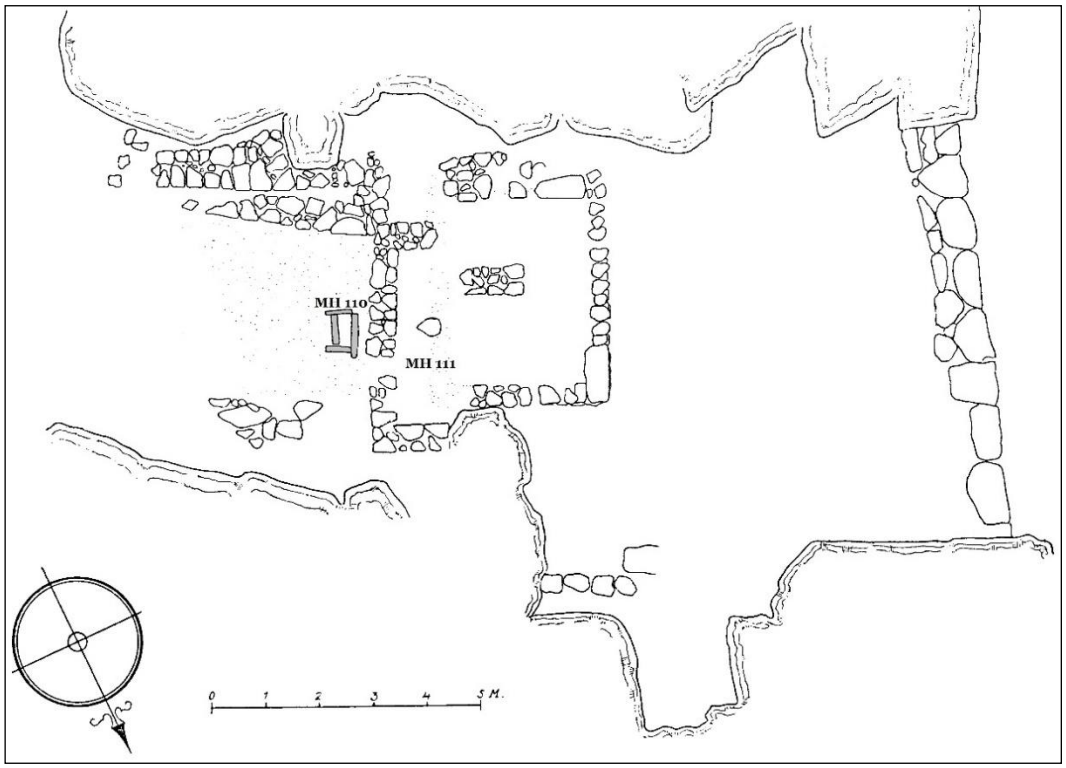

Fig. 101: The Polygonal Wall Terrace on the Acropolis. General plan of architectural remains and the two MH graves (after Frödin & Persson 1938, Fig. 24).

[110] The grave was almost destroyed before its discovery.

We see that in Kastraki a fairly different practice than in Lerna was applied: graves were mainly opened upon abandoned houses, as in Lerna, but these graves were usually not overbuilt by new houses, at least not shortly after. Rather, the area of a collapsed house was left open and was used for other purposes, one of which was burials. It should be noted, however, that not all abandoned houses had the same history/biography.

The area above House B, for example, was never used as burial place, in contrast to the later House C, erected at the area south of House B. The same was true for House T, where only one grave was opened upon its ruins. Nordquist and Ingvarsson-Sundström (2005, 161) have suggested that the area of the abandoned House B may have been avoided for unknown reasons, perhaps being a taboo, or that the house was used for a short period. However, the possibly short time of occupation would have affected the number of burials only if the burials were placed inside inhabited houses. But those burials are rather exceptional in Kastraki, as they were also in Lerna. Moreover, House B was not the only house without burials. Recently, Wiersma (2013, 127-128) based on the exceptional size and layout of House B has suggested that the occupants of the house buried their dead in the extramural cemeteries of Barbouna or/and of the East Cemetery, which were already in use. Although this is a possibility, we cannot associate the occupants of House B with the extramural cemeteries, as burials are also missing from smaller and earlier houses, such as House T.

It seems therefore that certain houses, or the area they occupied, were not considered appropriate for burial use after their abandonment. The same was noticed above the main apsidal part of House Complex 98A in Lerna (see chapter 1.2.3). It is difficult to conclude why this choice was made. Further analysis of the settlement data is necessary here.

The pattern of burial use of space as proposed here runs counter to Georgousopoulou's (2004) suggestion that property rights were expressed through burials in particular plots. If this was the case, the burials would have been opened in the courts of houses still in use or upon abandoned houses. The family owning the property would have erected a new house on the same plot after some time. However, as we have seen, the areas of ruined houses were usually left open. It can be therefore suggested that it was the members of more than one household who buried their dead in these plots, in between houses still in use. The density of the graves in certain areas and the clustering of burials of individuals of similar age (see below) support this hypothesis.

It becomes obvious that burials at Kastraki took place at different spatial contexts:

- Burials upon abandoned houses, in areas that were left free from habitation
- Burials at the courtyards of houses still in use
- Burials inside houses still in use
- Burials at the periphery of the settlement

This pattern differs from what has been observed in Lerna, where successive episodes of domestic and burial use of the same plot have been observed.

House	**Area**	**Period of use**	**Associated graves** (earlier, contemporary or later)
Pre-D	LT, Large Trench, West	early MH II- late MH II	MH1, MH2, MH3, MH6, MH16?
A	LT, Large Trench, East	early MH II- late MH II	MH21, MH22, MH24, MH38, MH48, MH49, MH56
B	LT, Large Trench, East	late MH II - early MH III	MH8, MH17
D	LT, Large Trench, West	late MH II- early MH III	East Part : MH5, MH7, MH9, MH10, MH11, MH12, MH13, MH14 West Part: MH15, MH31, MH35, MH36 Court: MH29, MH32, MH33, MH34?
C	LT, Large Trench, East	late MH III	MH18, MH20, MH23
E	LT, Large Trench, West	late MH III- MH III/LH I	MH4, MH39, MH40, MH41, MH42, MH43, MH44, MH45, MH46, MH47, MH50, MH51, MH52-53, MH54?, MH55
A and/or C	LT, Large Trench, East	early MH II- late MH III	MH19, MH26, MH27, MH28
R	LT, Terrace III	EH II	MH57, MH63, MH66, MH68, MH69, MH76, MH77, MH78, MH79, MH80, MH81, MH82, MH83, MH84, MH85, MH86, MH87, MH92, MH94, MH95
S	LT, Terrace III	EH III/MH I	MH59?, MH61, MH62
T	LT, Terrace III	MH I- early MH II	MH58, MH60?, MH70
Between T and U	LT, Terrace III	MH	MH64, MH65, MH67, MH89, MH90
House U	LT, Terrace III	MH II-MH III	MH71, MH72, MH73, MH74, MH75, MH88, MH91, MH93
Rooms 1 and 2	LT, Terrace II	MH II	MH96, MH97, MH98, MH99, MH100

Table 103: EH-MH houses and associated graves in the Lower Town (LT).

2.2.4 Spatial organization

The spatial organization of the graves at Kastraki was inevitably influenced by the organization of the settlement. Graves were opened amongst the houses, when the houses were still in use or, mainly, when they were abandoned and the space was left open. Consequently, the two parameters, settlement organisation and grave organisation were closely interwoven.

a. Grave orientation

The main question that will be addressed here is whether grave orientation was influenced by the orientation of contemporary or earlier house walls. Further, change through time between the early and the late phases is examined. Grave orientation will be later used as an indication of coherence of these burial groups.

For many of the Kastraki graves we do not have any information about their orientation (41 graves-37.3%). These were primarily pit graves (34). In addition, the orientation of four burial jars and three cists is unknown. From the graves with known orientation, the majority was aligned towards the NE-SW axis and to a lesser extent towards the NW-SE axis. In contrast with Lerna, the graves at Kastraki were rarely oriented towards the cardinal points and the same holds true for the architectural remains (Chart 119). The orientation of houses and tombs in Kastraki clearly followed the hill slope. Furthermore, the existence of nearby contemporary or earlier walls sometimes affected the orientation of a tomb. However, no strict rules seem to have existed. Finally, the number of dated graves with known orientation is too small to allow secure conclusions on change through time (Table 104).

In Lerna, grave orientation most of the times followed nearby walls (see chapter1.2.4a).

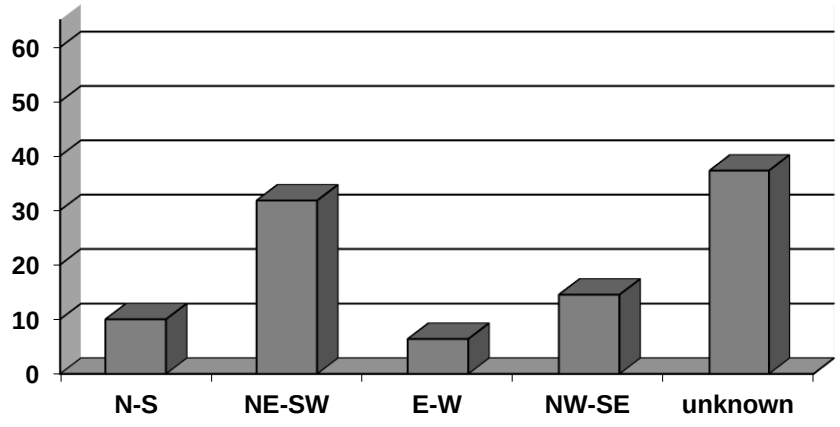

Chart 119: frequency of each grave orientation

	N-S	NE-SW	E-W	NW-SE
Early Phases	5	12	3	3
Late Phases	1	5	2	5
MH	5	18	2	8
Total	**11**	**35**	**7**	**16**

Table 104: chronological distribution of each orientation

b. Grave groups

Most of the graves at Kastraki tended to form small groups related to particular houses, if not specific rooms of these houses.

However, they were not evenly distributed above, outside or inside a house. The density and the number of graves included in each group differ. Sometimes, many graves have been found in a relatively small area, e.g. groups 5 and 13, sometimes a couple of graves have been found close together, e.g. group 4 and 11, and sometimes graves have been found more dispersed over a larger area, e.g. group 2 and 15.

A number of questions arise: were the grave groups well defined in spatial and chronological terms? To which houses were they related? And further, did these groups share common practices? Can we use grave groups to detect kin affiliations? And, were there differences between them?

Although the spatial analysis at Kastraki is not without problems because of the continuous occupation of the site in later periods, the burial groups could be spatially defined with more ease than the groups at Lerna, because house plans are more complete and most of the graves were not overbuilt by later houses. As a result, each group is usually associated not only with one house but most of the times with a particular area or room of this house. In contrast with Lerna then, the spatial definition of Asine groups is more accurate, and the number of graves included in each group is smaller. However, their temporal definition and their persistence through time were uncertain as a lot of graves are undated.

Nordquist and Ingvarsson-Sundström (2005, 161) separated four grave clusters in the Large Trench, each one associated with Houses A, C, D and E respectively. They concluded that the clusters were kin-based as adults and sub-adults were found in them.

They also refer to six grave clusters on the Terrace III associated with Houses R, S, T, U and W, where, however, infants clearly predominate. No further analysis based on these groups was done.

Here, based on the published information about houses and graves and on published plans showing the spatial relation of the two, most of the graves (87) of the Lower Town have been divided in 15 burial groups (Table 105) (Fig. 102, 103, 104). These groups are then used as tool to detect similarities patterns and coherence. This allows us to infer kinship relations or any other kind of affiliation among the people buried in the same group.

The graves found in the Acropolis are not treated as a separate group, as they were found in different areas and their association, if any, with architectural remains is unclear.

Group 1

The earliest graves found at Kastraki, dating to the EH/MH period belong to this group (Fig. 102). The group was associated with House pre-D of the Large Trench. In total, four EH/MH-MH II graves belong to this group. Actually, graves MH1, MH2, MH3, which were found close together, were probably earlier than the house. All three were oriented N-S, while the house walls had a SE-NW orientation. MH 16 may have been contemporary with or later than House pre-D. The E-W orientation of this grave does not seem to follow the orientation of the preserved walls of House pre-D.

Group 2

Group 2 is situated in more or less the same area as the earlier group 1, as it was associated with House D, Room XIX (Fig. 102). In total, seven MH II/III-MH III graves have been found in the area of this room. This is not a very compact group. Graves MH7, MH9, MH10 and graves MH12, MH13, MH14 seem to form two smaller sub-groups. The orientation of only two graves is known. One of them (MH9: NE-SW) was aligned to a nearby wall (Wall 36). Five of them (MH7, MH9, MH10, MH13, MH14) date to the transitional MH II/III period and may have been contemporary with the house. The two remaining graves (MH11, MH12) on the other hand, were clearly opened above the ruins of the house during the MH III period, again in the area of Room XIX.

Group 3

The three graves of group 3 were associated with a different room of House D, Room XX (Fig. 102). They date to the same period as the graves found in group 2. MH15 and MH31 were oriented NW-SE, thus parallel to house walls. MH15 and MH36 may have been contemporary with the house. On the other hand, MH31 was opened in the area of Room XX, after the house went out of use.

Group 4

This small group of three, or maybe five, graves was situated at the courtyard, west of House D (Fig. 102). Graves MH29, MH32, MH33 were placed close together, while the remaining two, MH30, MH34, were found in different areas of the courtyard. The group dates from the MH III period. Four out of the five graves share the same NE-SW orientation. These graves may have been contemporary or later than the house.

Group 5

This was a well-defined and compact group of 12 graves situated at the area of Room XXIII, House E (Fig. 102). The graves date to the transitional MH II/III until at least the MH III period. Four graves were oriented E-W and only two NW-SE, following the orientation of walls. Orientation of the remaining graves is unknown. Grave MH54 preceded the construction of House E, as it was found below Wall 42. Grave MH42 post-dated the use of the room as it was opened in Wall 44. The same probably holds true for grave MH 44 the digging of which disturbed the house floor. The remaining graves of this room may have been contemporary with or later than the use of the house. However, the high density of graves in one room makes it more possible that the graves post-dated its use. Nevertheless, the possibility cannot be excluded that some of them may have taken place while the house was still in use.

Group 6

The nine graves of group 6 were found close together and they were associated with the east part of the successive Houses A and C (Fig. 102). The earlier date to the MH I/II period and the latest to the transitional MH III/LH I period. Five oriented NE-SW and two NW-SE. Generally, graves do not seem to align to close by walls. Graves MH21 and MH22 post-dated earlier House A as they were dug upon one of its walls. Graves MH20 and MH 23 were later than the upper House C. The association of the remaining graves with one of the two houses is problematic.

Group 7

Three, or maybe four, graves have been ascribed to group 7 (Fig. 102). Three graves, MH48, MH49, MH56, were placed in the area of Room II, House A. The fourth grave, MH47, was found in the area west of the room. They date to the MH I/II-MH II period. Two of the graves were orientated N-S and one NE-SW. Once more, the graves do not seem to align to close by walls. The graves may have been contemporary with or later than the house.

Group 8

Burial group 8 was situated upon the ruins of House R in Terrace III of the Lower Town (Fig. 103). The eight graves of the cluster were found close together. However, the existence of two smaller sub-groups -MH76, MH77, MH78, MH79, MH83 and MH80, MH81, MH92- cannot be excluded. Graves date to MH I-MH II (?) period. Unfortunately, the orientation of just one grave is known. This grave (MH80: NE-SW) was not aligned to any of the walls shown on published plans.

Group 9

This was a small group of three, probably early, graves which were found in loose arrangement in the same area above House R, Room I (Fig. 103). The MH57 jar burial dates to MH I period. The orientation of the graves is unknown. All graves post-dated the use of the house.[111]

Group 10

The five graves of group 10 were found close together in an open area south of House R (Fig. 103). Their dating is unknown. The orientation of just one grave (MH82: NW-SE) is known. The grave was aligned to a nearby wall (Wall 16).

Group 11

Group 11 was associated with a different area of House R, Room III (Fig. 103). It was a small but compact group of four graves. Their dating is unknown. Three of the four graves were oriented NE-SW but they do not follow the orientation of nearby walls. They all post-dated the use of the house.

Group 12

Five, or maybe six, graves are included in this group (Fig. 103). Five of them were situated in an open area between Houses T and U, in Terrace III. The sixth, MH70

[111] The possibility that the graves of groups 8 and 9 are part of a larger group related to House R cannot be excluded.

dating from the MH I period, was found close by, at the SE corner of House T, Room VI and may have been contemporary with the house. The dating of the remaining graves and their association with the close-by houses is unknown. Three of the graves were oriented NE-SW, but they do not seem to follow orientation of house walls.

Group 13

This was a well-defined and compact group of eight graves found in the area of Room U, in Terrace III (Fig. 103). The graves were overbuilt during the LH period by Room W. Based on their stratigraphic position between the two rooms the graves of group 13 must date between the MH III and the LH period. The orientation of four graves is known. Some of them may have been aligned to nearby walls. The high concentration of graves in restricted area makes it more possible that they post-dated the use of the room.

Group 14

Five MH I-II graves have been associated with the MH II Rooms 1 and 2, in Terrace II (Fig. 104). Four of them were oriented NE-SW, following nearby walls. More refined spatial observations cannot be made, as only three of the five graves are shown on the published plans. The graves were earlier than the rooms.

Group 15

This is a dispersed and not well defined group of four graves (Fig. 103). They were all situated at the area south of House T, and SE of House S, in Terrace III. Two of the graves (MH59, MH61) date to the MH I period, while the remaining are undated. MH61 and MH62 follow the orientation of house walls (NW-SE), while the remaining two do not (NE-SW). The graves could have been earlier from, contemporary with or later than House S.

Compared to Lerna burial groups in Kastraki are better defined spatially, but their temporal definition and their temporal relation with associated houses is insufficient.

In the following chapters the coherence of these groups in terms of age and gender inclusion, of grave types and finds and of mortuary practices will be studied. The ultimate goal will be to examine a) whether the groups shared similarities, in which case we may be able to interpret them as kin groups, and b) whether differentiation existed between these groups.

Group	No of graves	Area	Date	Associated architecture	Graves
1	4	LT, Large Trench, West	EH/MH-MH I-II	House pre-D	MH1, MH2, MH3, MH16
2	7	LT, Large Trench, West	MH II/III-MH III	House D, Room XIX	MH7, MH9, MH10, MH11, MH12, MH13, MH14
3	3	LT, Large Trench, West	MH II/III-MH III	House D, Room XX	MH15, MH31, MH36
4	3 or 5	LT, Large Trench, West	MH III	House D, courtyard	MH29, MH32, MH33, MH30?, MH34?
5	12	LT, Large Trench, West	MH II/III-MH III	House E, Room XXIII	MH39, MH40, MH41, MH42, MH43, MH44, MH45, MH46, MH51, MH52-53, MH54, MH55
6	9	LT, Large Trench, East	MH I/II-MH III/LH I	Houses A and C	MH19, MH20, MH21, MH22, MH23, MH24, MH26, MH27, MH28
7	3 or 4	LT, Large Trench, East	MH I/II-MH II	House A, Room II	MH48, MH49, MH56, MH47?
8	8	LT, Terrace III	MH I-MH II?	House R, Rooms I-II	MH76, MH77, MH78, MH79, MH80, MH81, MH83, MH92
9	3	LT, Terrace III	MH I-?	House R, Room I	MH57, MH94, MH95
10	5	LT, Terrace III	?	House R	MH82, MH84, MH85, MH86, MH87
11	4	LT, Terrace III	?	House R, Room III	MH63, MH66, MH68, MH69
12	5 or 6	LT, Terrace III	?	Houses T and U	MH64, MH65, MH67, MH89, MH90, MH70?
13	8	LT, Terrace III	MH III-LH ?	House-Room U	MH71, MH72, MH73, MH74, MH75, MH88, MH91, MH93
14	5	LT, Terrace II	MH I-MH II	Rooms 1 and 2	MH96, MH97, MH98, MH99, MH100
15	4	LT, Terrace III	MH I-?	Houses S-T	MH59, MH60, MH61, MH62

Table 105: Grave groups in the Lower Town (LT).

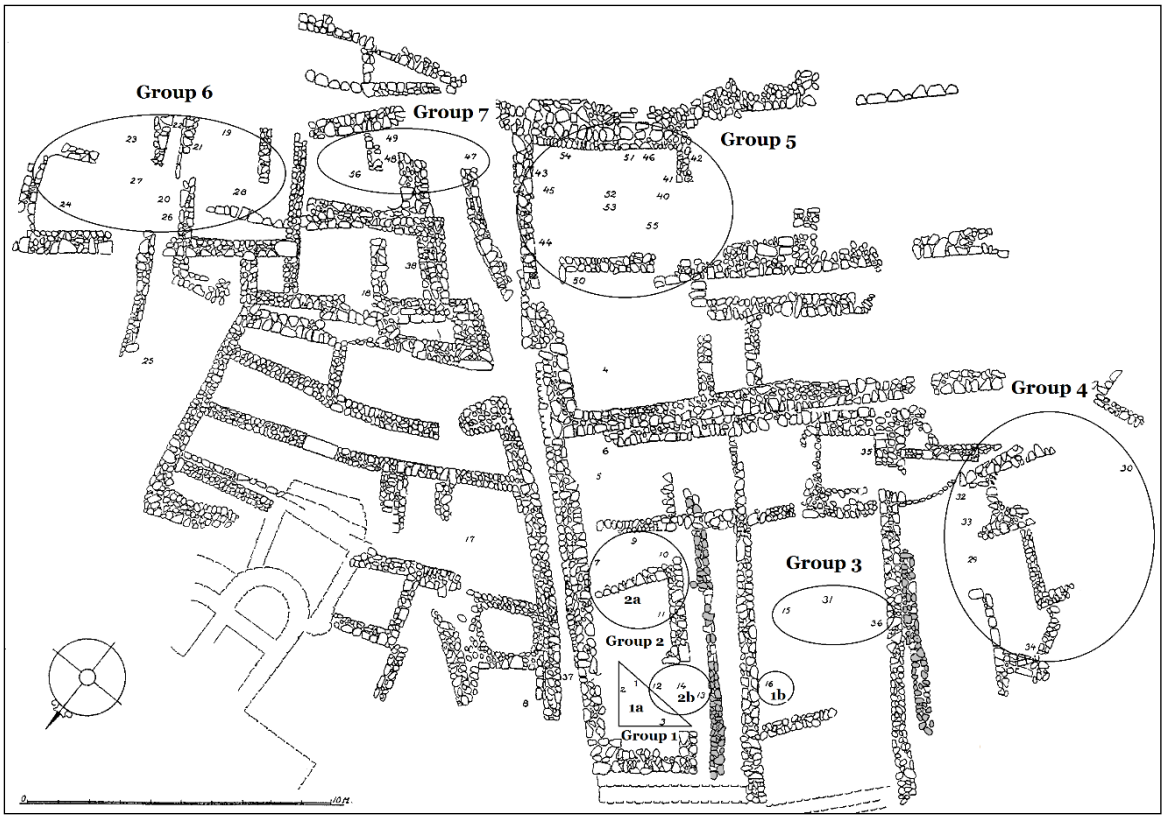

Fig. 102: Grave groups at the Large Trench. The position of the graves is indicated by numbers (after Frödin & Persson 1938, Fig. 42).

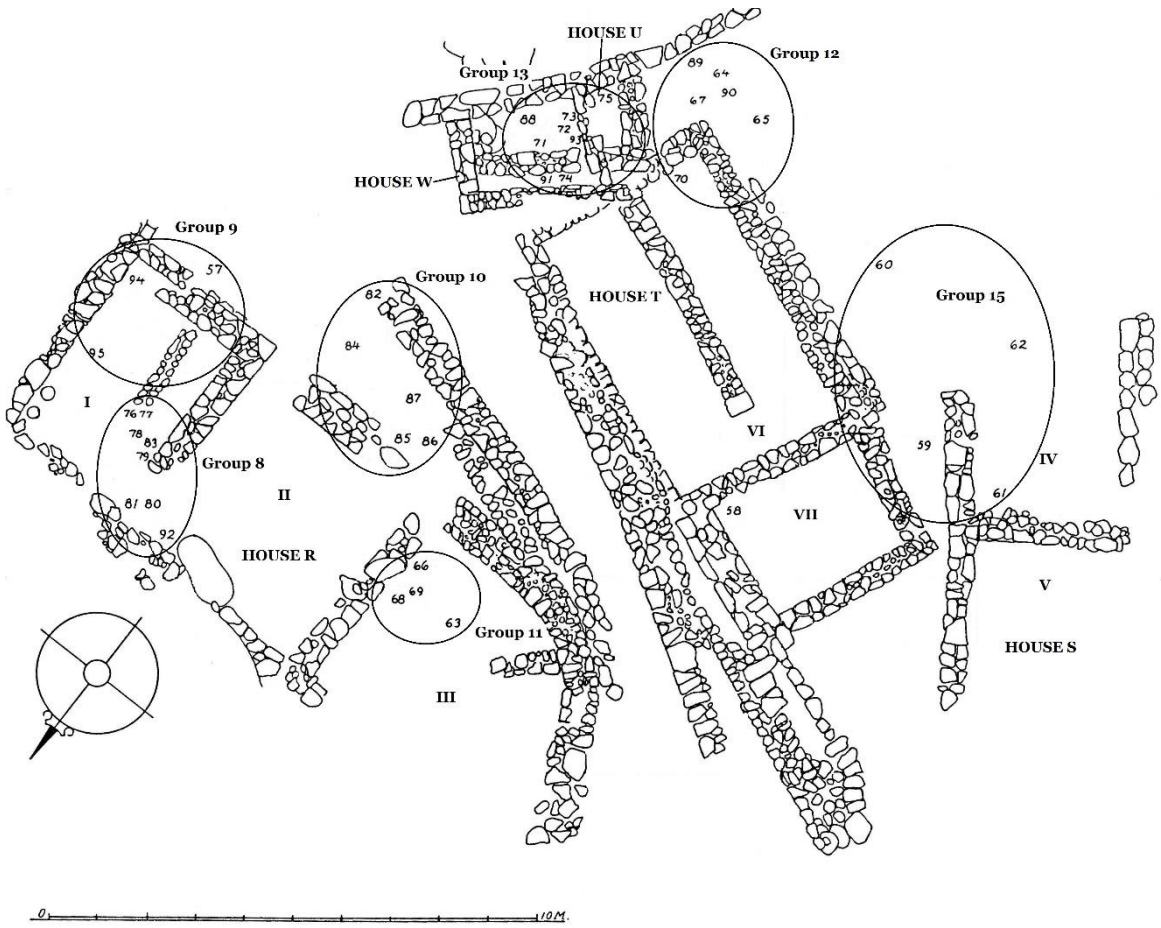

Fig. 103: Grave groups on Terrace III. The position of the graves is indicated by numbers (after Frödin & Persson 1938, Fig. 68).

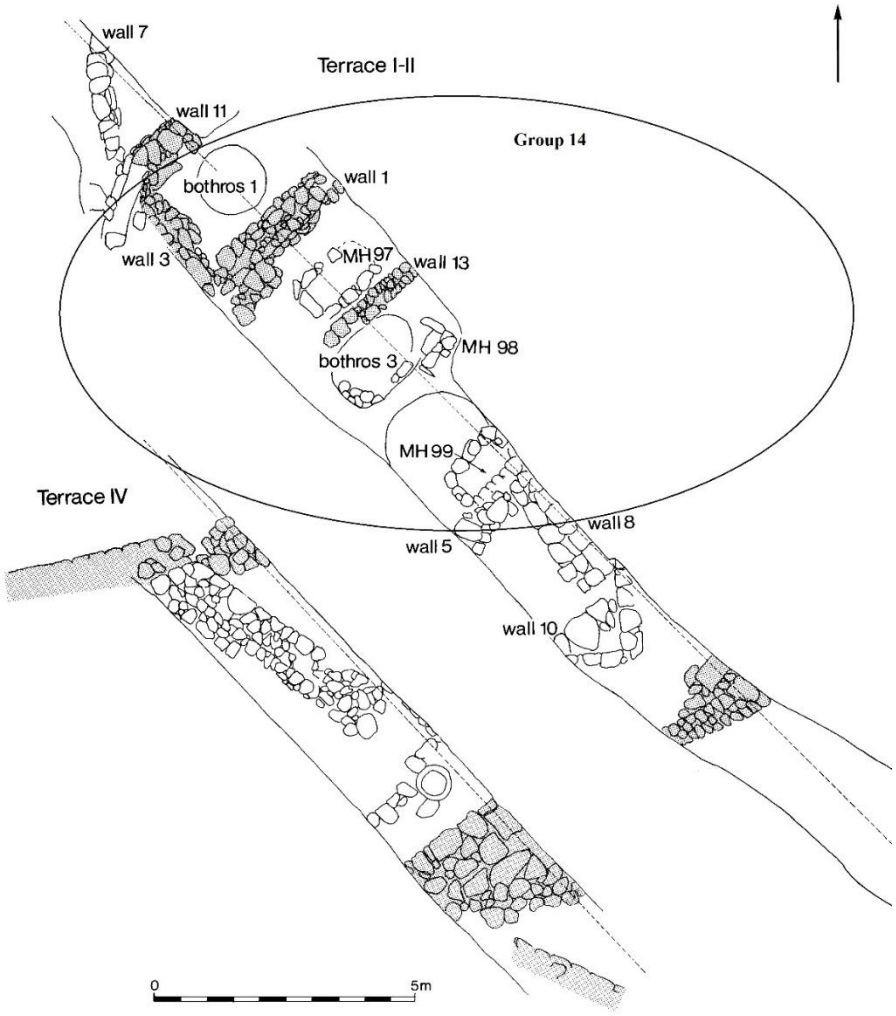

Fig. 104: Grave groups on Terrace II. Only three of the eight graves are illustrated (after Nordquist 1987, Fig. 68).

2.3 KASTRAKI: GRAVE ANALYSIS

Having discussed cemetery location and spatial organization through time, let me now turn to the graves. I shall first discuss the skeletal material and then the grave types.

2.3.1 The skeletons

The main question to be addressed here is whether all age categories and both sexes were represented in the cemetery through time and across space. Skeletal evidence for health status and diet is then briefly examined. Through the analysis emphasis is given on comparisons between adults and sub-adults, between men and women and between the grave groups. The ultimate goal is to detect possible differentiation and variation across space as well as through time.

In total, more sub-adults than adults have been buried in Kastraki. Although few adult skeletons have been sexed, it seems that males and females were almost equally represented. The demographic profile of the grave groups differs from what has been observed in Lerna. In Kastraki the grave groups were primarily age based.

114 individuals have been recovered from the 110 graves at Kastraki. Some of the best-preserved skeletons from the 1926 excavations were transferred to Sweden where the anthropologist Carl M. Fürst (1930) studied 24 MH adult and one child skeletons. He included in his study only one sub-adult probably because sub-adult skeletons were considered less informative at that time (Ingvarsson-Sundström 2008, 17). During 1938-1939 Lawrence J. Angel (1982, 105-138) re-studied all adult skeletons, but not the sub-adult ones. His results were published in 1982, together with the skeletons from Barbouna and from the East Cemetery. Both researchers estimated the age and sex of the skeletons they studied, but presented partially different determinations. The main focus of both studies was skull and long bone measurements, while pathological conditions were not systematically studied and analysed. Recently, Ingvarsson-Sundström (2003) re-studied 16 of the adult skeletons, during her study of the sub-adult material. The results have been published in the Asine series (Ingvarsson-Sundström, 2008). Here Ingvarsson-Sundström's results, based on new techniques and approaches in anthropological studies, and Angel's results, which were also used in more recent Asine publications will be followed, when available. For the remaining skeletons any source of available information will be used (Table 108).

Moreover, the disarticulated skeletal material found loose in the soil during the excavations without clear grave context was studied by the same researcher

(Ingvarsson-Sundström, 2008). According to her study, the disarticulated skeletal material belonged to 103 sub-adults (32 of which belong to published graves) and 36 adults (16 of which were already studied before) (Ingvarsson-Sundström 2008, 18). Some, but not all, of this material was assigned to particular graves (Ingvarsson-Sundström 2008, 36). This is actually the only skeletal material from Kastraki preserved until today. The rest of the human bones has been lost (Ingvarsson-Sundström 2008, 15). Only the skeletons that were connected with a published grave will be thoroughly analysed here. The remaining disarticulated skeletal material form the 71 sub-adults and the 20 adults will be discussed separately (see section 2.3.2).

As almost half of the skeletons have never been studied, a general division between adults and sub-adults will be followed in the analysis. In total, 40 of the skeletons were adults -35% - and 74 were sub-adults -65%. In accordance with the age composition observed at Lerna (see chapter 1.3.1), sub-adults predominate at Kastraki as well. In Lerna however, the proportion of adults and sub-adults buried in settlement changes through time. In Kastraki such an analysis is not possible. Nevertheless, it is interesting that the three earlier graves belong to adults.

From the studied skeletons comes out that all age categories, except from juveniles, were represented in the burial assemblage from Kastraki (Table 106). The absence of juveniles taken together with the underrepresentation of children may result from the many unstudied skeletons referred generally as ‘children’ by the excavators.

If we examine age inclusion into the grave groups we see that the groups of burials in the Lower Town of Kastraki were differentiated primarily on the basis of age (Chart 120). For example, sub-adult graves were opened in the area of Room XIX, House D**,** group 2, while the only adult grave was opened in the area of Room XV. In House A, only sub-adult burials took place in the area of Room II, group 7, while in Room I and to the east of the house, group 6, mainly adult burials have been found.

In Lerna on the other hand, age differentiation in space was not as apparent as in Kastraki. The graves formed clusters, but these clusters contained all age groups. Only during the later part of the settlement occupation was an area preserved for sub-adult burials, group G (see chapter 1.2.4b).

Although it is difficult to understand on which criterion the selection of the areas where graves opened was made, it is important that a spatial differentiation based on age has been observed. Age differentiation is not only observed between the graves found upon an abandoned house but also between the graves found in the centre of the settlement

and in its periphery. For example, only occasionally were sub-adults (3 sub-adults, 9 adults) buried at the Acropolis and at Terrace II, which is located at the edges of the settlement, close to the Acropolis. On the contrary, mainly sub-adults were buried lower on the hill at Terrace III and in the area of the Large Trench. This differentiation was already observed from the early phases of the MH period. The presence of many undated graves, however, does not allow us to study if this pattern became more or less prominent through time.

Regarding gender, 14 of the studied skeletons were males and nine were females (Table 107). It seems therefore that no one was excluded. Again, similar inclusion between males and females was observed at Lerna (see chapter 1.3.1).

Age category	**Approximate biological age**	**Number of skeletons**
Foetus-Neonate	premature-1y	**31**
Infant	1-6y	**7**
Child	6-12y	**2**
Sub-adult (not studied)	<18y	**32**
Juvenile	12-18y	**0**
Young adult (YA)	18-30y	**7**
Prime adult (PA)	30-40y	**8**
Mature adult (MA)	40-50y	**5**
Old adult (OA)	+50y	**1**
Adult (studied)	+18y	**6**
Adult (not studied)	+18y	**15**
	Total	**114**

Table 106: Age categories

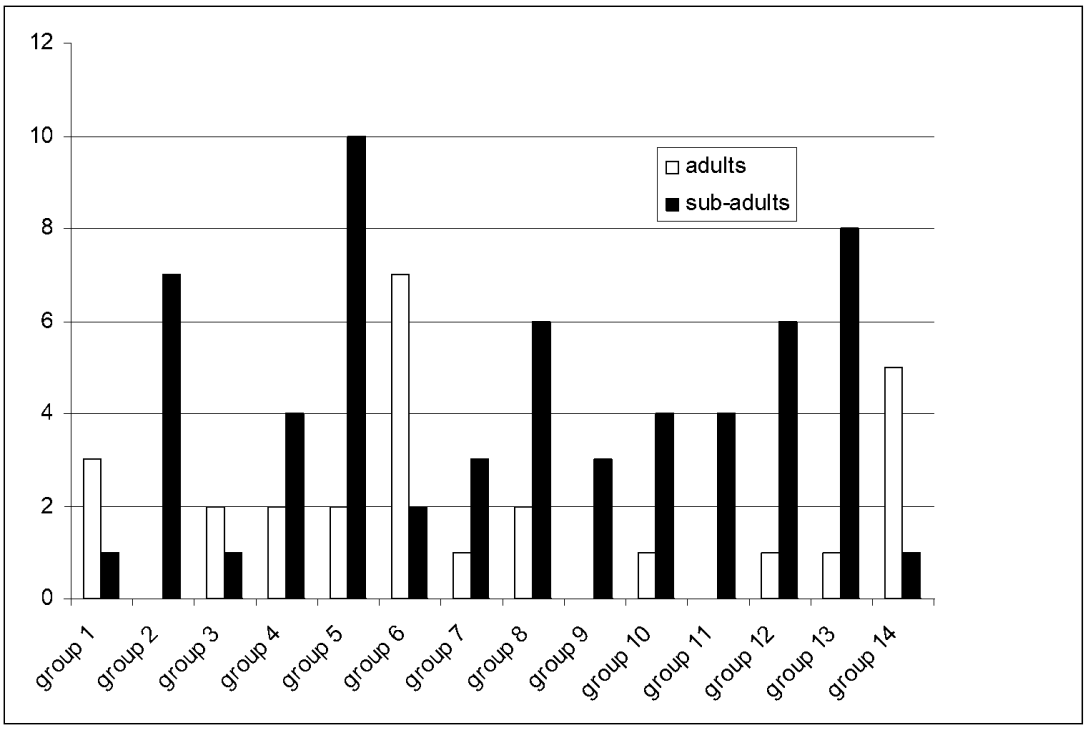

Chart 120: age inclusion in the burial groups

Age category	**Male**	**Female**	**Unknown**	**Total**
Juvenile	0	0	0	**0**
YA	4	3	0	**7**
PA	4	4	0	**8**
MA	5	0	0	**5**
OA	1	0	0	**1**
Adult	0	2	19	**21**
Total	**14**	**9**		

Table 107: Sex distribution of studied skeletons

Grave number	Fürst (1930)	Angel (1982)	Ingvarsson- Sundström (2003)	Excavator's aging
MH1	--	--	--	adult
MH2	--	--	--	adult
MH3	--	--	--	adult
MH4	--	--	--	adult
MH5	--	--	--	child
MH6	--	--	--	child
MH7	--	--	--	child
MH8	--	--	--	adult?
MH9	--	--	--	adult?
MH10	--	--	--	child
MH11	--	--	--	child
MH12	--	--	--	child
MH13	--	--	--	infant
MH14	--	--	LT06: child (5-7y) or (newborn?) (MH14?)	child
MH15	--	--	LT14: female (?), adult (20+/-2Y?)	adult
MH16	--	--	--	child
MH17	--	--	--	infant
MH18	--	--	--	child
MH19	--	--	E07a: neonate (4m or 9-10lm) (MH19?)	adult?
MH20	18FA: female, adult	female, 35	E02: adult (MH20 or 21 or 23 or 24)	--
MH21	19FA: male, c. 30	male, 28	E02: adult (MH20 or 21 or 23 or 24)	--
MH22	--	--	E02: neonate (9.5-10lm) (MH22?)	infant
MH23	20FA: male, 30-40	male, 32	E02: adult (MH20 or 21 or 23 or 24)	--
MH24	--	--	E02: adult (MH20 or 21 or 23 or 24)	adult?
MH25	--	--	E10: adult<20 (MH25 or 28?)	--
MH26	17FA: male, adult	male, 30	--	--
MH27	21FA: male, c. 40	male, 25	--	--
MH28	--	--	E10: adult<20 (MH25 or 28?)	adult
MH29	22FA: male, c. 30	male, 34	W05: adult (female?) and/or neonate (8.5-9lm) (MH30 or 29?)	--
MH30	23FA: female (?), c. 40	female, 30	W05: adult (female?) (MH30 or 29?)	--
MH31	24FA: male, c. 60	male, 58	--	--
MH32	--	--	--	infant
MH33	--	--	W06: infant (MH33?)	infant
MH34	--	--	--	child
MH35	--	--	W03: neonate (4m +/-6m) and/or neonate (9-10lm)	child
MH36	--	--	W05b: neonate (9-9.5lm)	child
MH37	--	--	--	adult
MH38	--	--	S01: adult	adult
MH39	--	--	--	child
MH40	--	--	S03a: neonate (9-9.5lm)	infant
MH41	--	--	S03B: neonate (5m +/-6m)	infant
MH42	--	--	--	child
MH43	--	--	S04a: neonate (8.5-9lm)	child
MH44	--	--	S04b: neonate (4m +/-2m)	child
MH45	--	--	S05: neonate (c. 0-2m)	child
MH46	--	--	S07: neonate (9-9.5lm)	infant

MH47	--	--	S06: adult	adult?
MH48	--	--	S06a: neonate (6lm +/-2lm or 9lm +/-1lm)	infant
MH49	--	--	S06b: neonate (6lm +/-2lm or 9lm +/-1lm)	infant
MH50	--	--	S08: infant (4y +/-6m?) or neonate (6-15m?)	child
MH51	--	--	--	child
MH52-53	14FA: male, c. 40 15FA: female, c. 30-40	male, 43 female, 35	S10: adult	--
MH54	--	--	--	No bones
MH55	--	--	--	infant
MH56	--	--	T4:01: infant (c. 1-3y) (MH56?)	child
MH57	--	--	--	child
MH58	6FA: male, c. 50	male, 44	T3:01: male, 40-45	--
MH59	7FA: female (?), c. 40-50	female, 30	--	--
MH60	8FA: female, adult	female, adult	T3:15: adult and 1 neonate, 1 infant (MH60?)	--
MH61	9FA: female, not young	female, adult	--	--
MH62	10FA: male, c. 30-40	male, 40	T3:14: male, 30-45 and neonate (10 lm?)	--
MH63	--	--	T3:22: infant (5.5y +/-6m)	child
MH64	--	--	T3-2:04a: neonate (5.5m +/-6m) and/or neonate (8.5-10lm)	infant
MH65	--	--	T3-2:04b: neonate (8.5-10lm) and/or neonate (5.5m)	infant
MH66	--	--	T3:13: infant (5y +/-6m)	child
MH67	--	--	T3-2:05: neonate (9-10lm)	infant
MH68	--	--	--	infant
MH69	--	--	--	infant
MH70	--	--	T3:04: neonate (6m +/-2m)	infant
MH71	--	--	--	child
MH72	--	--	T3-2:07: neonate (Newborn) (MH72?)	infant
MH73	--	--	--	child
MH74	11FA: female, c. 40-50	female, 38	T3:08: adult, 30 (+/-5y)(MH74 or 81 or 80)	--
MH75	--	--	--	child
MH76	--	--	T3:05: neonate (6m +/-6m)	child
MH77	--	--	T3:06a: neonate (9-10lm)	child
MH78	--	--	T3-2:09: neonate (9.5-10lm) (MH78?)	child
MH79	--	--	--	child
MH80	12FA: female, c. 40	female, 40	T3:08: adult, 30 (+/-5y) (MH74 or 81 or 80)	--
MH81	26FA: female, c. 30	male, 33	T3:08: adult, 30 (+/-5y) (MH74 or 81 or 80)	--
MH82	13FA: child, <10y	child, 8y	T3:08: child (11y +/-1y) (MH82?)	--
MH83	--	--	--	child

MH84	27FA: female (?), young	male, 24	T3:09: adult (MH84?)	--
MH85	--	--	T3:06b: neonate (9-10lm)	child
MH86	--	--	T3:06c: neonate (9-10lm)	child
MH87	--	--	T3:23: neonate (8lm+/-2m)	child
MH88	--	--	T3-2:12: neonate (newborn) T3-2:03: neonate (9.5-10lm)	child
MH89	--	--	T3-2:04c: neonate (8.5-10lm) and/or neonate (5.5m)	child
MH90	--	--	--	child+adult?
MH91	--	--	--	child
MH92	--	--	--	child
MH93	--	--	--	child
MH94	--	--	--	child
MH95	--	--	--	child
MH96	--	--	T2:01: adult, 40 (+/-5Y) (MH96 and/or MH97 and/or MH98?)	adult
MH97	1FA: male, adult	male, 43	T2:07: adult (and/or MH 101?)	--
MH98	2FA: female, young	female, 18	T2:01:adult and neonate (9-9.5lm) and/or neonate (1-2m) and/or neonate (1-5m) and/or infant (1-3y) (MH98?)	--
MH99	3FA: male, c. 30-40	male, 36	T2:10: adult	--
MH100	4FA: male, c. 60	male, 42	--	--
MH101	5FA:female, young	female, young	T2:07: adult (and/or MH 97?) T2:09: neonate (9-10lm?)	--
MH102	--	--	T2:09: infant (1y+/-3m)	child
MH103	--	--	T2:09: neonate (9-10lm)	infant
MH104	--	--	--	adult
MH105	--	--	--	child
MH106	--	--	--	adult
MH107	--	--	--	adult
MH108	--	--	--	adult
MH109	--	--	--	adult
MH110	--	--	--	infant?
MH111	--	--	--	--

Table 108: Kastraki. Age and sex determination by different researchers.

Health status and diet

The analysis of health status and diet at Kastraki is seriously hampered and restricted by the lack of an osteological study for the entire human material. Most of this material is now lost. The extant human bones studied by Ingvarsson-Sundström (2008) consists from partially preserved skeletons, primarily sub-adults. As a result, paleopathological analysis, mechanical load markers analysis, stable isotopes analysis or dental microwear analysis was not possible to be done. The information given below is based on morphological examination alone.

Evidence of childhood stress (e.g. enamel hypoplasia, cribra orbitalia) is found throughout the period, but adult stature indicates reasonably good nutrition. This may

suggest that although childhood was a stressful period for many children, those who survived until adulthood were not markedly affected by growth disturbances, or managed to catch up from periods of reduced growth (Ingvarsson-Sundström et al., 2013).

According to Ingvarsson-Sundström, the signs of malnutrition on adult female skeletons (i.e. lower age at death, pelvic flattering, shorter stature, worse dental health) indicate that the food was not equally distributed between the two sexes. She finds it possible that the presumed difference in diet began immediately after birth with selective breast-feeding practice and earlier weaning of female infants (Ingvarsson-Sundström 2008, 97).

The results of the biometric model applied in sub-adult skeletons showed that the infants were breastfed until approximately the age of four months. Quite substantial amounts of foods other than breast milk was given to infants at this age (Ingvarsson-Sundström 2008, 100).

The nutritional status of the mothers must have had an enormous impact on the fate of the new-born children. In a time when sanitary conditions were poor, the introduction of food other than breast milk at four months age was probably a crucial cause of infant mortality (Ingvarsson-Sundström 2008, 101).

To conclude, adults and sub-adults and both sexes were buried in the settlement. However, sub-adults clearly predominate. Moreover, spatial differentiation based on age has been observed. Finally, the osteological analyses have indicated differentiation in diet of adults and sub-adults and have also proposed gender differentiation already from childhood.

Let me now turn to grave types and furnishings and examine whether age and gender differentiation was also observed there.

2.3.2 Grave types and furnishings

The main question to be addressed is whether different grave types were used for different sections of the population, e.g. adults versus sub-adults, men versus women, between burial groups.

In Kastraki three grave types were used: jar burials, pits and cists. Additionally, a great amount of stray bones, missing a grave context, have been found in the settlement strata. More than half of the graves were pits used more often for sub-adult burials, mainly neonates. Pits were used throughout the period under study but with declining frequency. However, more than half of them are undated. Gender differentiation is hampered by the small number of sexed skeletons. Cists of various types are the second most common grave type. Although most of them are undated, cists were used from the early until the late MH period. Adults and sub-adults were buried in cists, while the percentage of females was higher. Finally, burial jars were only occasionally used for sub-adult burials throughout the period.

a. Burial jars

Six burial jars -5.4% of the graves- have been found at Kastraki (Fig. 105). Their height varied between 0.36m-0.75m. Three of them (MH10, MH17, MH45) were lying on their side. MH45 was placed in a bothros, while the position of the remaining five in relation to other features is unknown. Coarse pithoi (MH10: MH II/III, MH45:?, MH57: MH I) were usually used as burial containers. Once however, a MH II Aeginetan pithos with light-on-dark decoration was found (MH17) and twice (MH11, MH12) MH III two-handled jars were used. Traces of use above fire were found on one of them (MH11), indicating that it was used as cooking pot before its final use as burial container.

In contrast with Lerna, where all burial jars date to the two early MH phases, at Kastraki they date to the MH I until the MH III period (MHI: 1; MHII: 1; MHII/III: 1; MHIII: 2). While the size of the burial jars was more or less the same at both sites, at Kastraki a greater variety of shapes has been observed.

Spatial distribution

MH10, MH11, MH12 were found at group 2, which is related with House D, Room XIX. The three jars were found close together, placed in a row. MH10 dates to the MH II/III period, while MH11 and MH12 to the MH III period. Two more jars were related with different houses of the Large Trench (MH17-MH II: area of House B; MH45-MH: area of House E). Nevertheless, the finding of five of the six burial jars at the same area of the settlement may indicate a recurrent practice. The sixth burial jar (MH57-MH I)

was found in the area above House R, on Terrace III. This was the earliest burial jar found at Kastraki.

Age and gender

All jar burials were sub-adult burials. The same age inclusion was also observed at Lerna. Only one of them, however, has been studied (MH45, S05) and it was a neonate (0-2m).

Furnishings

Once, the mouth of the burial jar (MH17) was found covered with the bottom of a coarse vessel. No other furnishing has been found in relation to jar burials.

Marker

No marker has been found in relation to a jar burial. Grave markers, however, are generally missing from Kastraki.

Fig. 105: jar burial MH45 (from Frödin & Persson 1938, Fig.99).

We see therefore that jar burials in Kastraki were used throughout the period for sub-adult burials. Their spatial distribution is not even. Most of them were found in the area of the Large Trench in the LT. House D, group 2 reveals the highest density of jar burials, as three of the six were found there.

b. Pit graves

More than half of the graves at Kastraki were pits (71, 64% of the graves). Size and dimensions are known only for three graves (rounded and rectangular). Four of the pits were rock-cuts and four were stone-lined pits.[112] In those pits a single row of stones defined their periphery.[113]

The remaining was simple pits dug in the soil (Fig. 106). However, it is not clear from the publications if the dimensions of the pits were larger than the skeleton or if the skeleton was the first evidence for the existence of a pit grave. As we will see later (chapter 3.3.2b) such a distinction has been made for the Aspis pits.

Three of the stone-lined pits date to the EH/MH period (MH1, MH2, MH3) and the fourth to the MH I period (MH98) (Fig. 107). No later stone-lined pit has been found. In general, the percentage of pits was high throughout the period and it reached its peak during the early phases (Chart 121).[114] It should be emphasized, however, that half (34) of the pits are undated making any further observations on changes through time impossible.

The percentage of pits in Lerna (46%) is a little lower than in Kastraki and their frequency declines significantly after the MH II period.

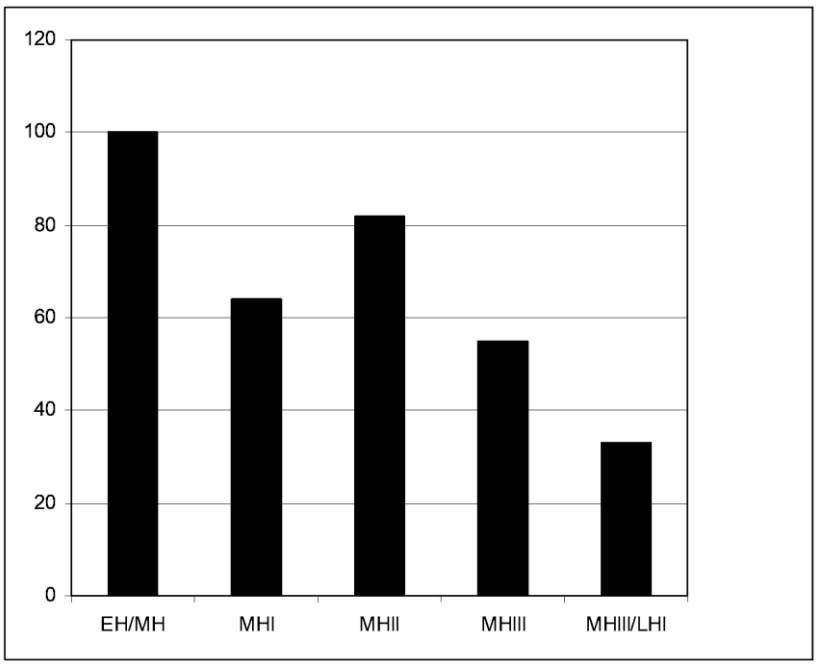

Chart 121: percentage of pits in each period.

[112] These graves are referred as stone enclosures (Nordquist 1987, List of Graves).
[113] In Lerna three similar pits have been found. A single row of stones around the pit was probably part of the cover stones.
[114] EH/MH: 3 pits; MH I: 9 pits; MH II: 14 pits; MH III: 10 pits; MH III/LH: 1 pit; MH: 34 pits.

Spatial distribution

Pits were found across the different areas of the Lower Town but they were underrepresented on the Acropolis, where only one of the five graves found was pit (MH107: MH III). At least one pit has been found in most of the grave groups. Their frequency however, varied considerably. Therefore, only pit graves have been found in grave groups 1, 3, 7 and 12, while a single pit has been found in group 4. Pits are totally missing from group 15. Moreover, the three earlier stone-lined pits (MH1, MH2, MH3) were found close together in group 1, at the area where House pre-D was erected. Actually, three of the four pits of this group were stone-lined.

Age and gender

23 adults -57,5% of the adults- of different age categories[115] and 49 sub-adults -66,2% of the sub-adults-, mainly neonates,[116] were buried in pit graves. Based on the dated pits, adults were only occasionally buried in pits during the late phases of the period (Table 108). The EH/MH stone-lined pits were adult burials. The MH I stone-lined pit was a double adult and neonate burial. Stone enclosures were therefore strongly related with adult burials.

From the studied skeletons six were males and two were females. Therefore, based on small number of cases, it seems that men were more often buried in pits than women. Only three of the male pits were dated, all to the MH II-MH III period. One of the female pits, a stone-lined one, dates to the MHI period.

At Lerna, the same inclusion of adults and sub-adults was observed. At this site as well, only few of the adult pits date to the late phases. In the later period most adults were buried in cists. However, the percentage of males and females buried in pits was almost equal at Lerna.

	ADULTS	**SUB-ADULTS**
Early phases	11	13
Late phases	3	8

Table 108: distribution of adult and sub-adult pits through time

[115] 4 YA, 3 PA, 2 MA, 1 OA, 13 adults

[116] 24 neonates, 5 infants, 1 child, 18 sub-adults

Furnishings

A cover was found above only four pits (5,6%) (MH I-II: 1, MH II/III: 1). Usually, stone slabs were used to cover the grave. Once, a large fragment of a coarse pithos covered the burial.[117] Twice the presence of a cover was ambiguous.[118] The covered pits belonged to three adults and one sub-adult individual.

A floor was found in seven pits (9,8%) (MH I: 2, MH III: 1). All were made of pebbles. Twice, however, the presence of a floor was uncertain.[119] Five adult and two sub-adult burials had floors. Floor and cover were combined once (MH28, MH, adult).

We see therefore, that grave covers and floors have been more often found in adult pit graves. The same holds true for Lerna. In Lerna, however, the percentage of floors (18%) was considerably higher than in Kastraki.

Moreover, traces of some sort of clay packing for the joints of wooden boxes were found in four pits (Frödin & Persson 1938, 124, 127; Nordquist 1987, 132, 134; Mårtenson 2002, 47; Ingvarsson- Sundström 2008, 104-105). Impressions of wood were found on the packing fragments and it is likely that they were used to seal possible wooden coffins. However, the possibility cannot be excluded that the boxes contained burial offerings. Nevertheless, in all pits where clay packing has been found foetuses (8.5-10lm) and neonates (until 5.5m) were buried. Moreover, three of them were found close together, at grave group 12, Terrace III (MH64, MH65, MH67 all undated). The fourth (MH103: undated) was found on Terrace II. Similar clay fragments were noted in the excavation diaries in more foetus-neonate graves, again from Terrace III[120] (Ingvarsson- Sundström 2008, 104).

Finally, once a skeleton cover consisted of rubble may have existed (MH6: sub-adult, MH I-II?).

Marker

As mentioned before, no grave marker has been found at Kastraki.

[117] MH28: 1 slab; MH39: large fragment of a coarse pithos; MH81: slabs, the same that covered MH80; MH100: MHI-II, slabs.

[118] MH8: pebbles were found above the grave, probably from a stone paving; MH71: the skeleton was found below a stone.

[119] MH58, MH65 both stone floors.

[120] MH64-67.

Fig. 106: Pit grave MH31 (from Frödin & Persson 1938, Fig.96).

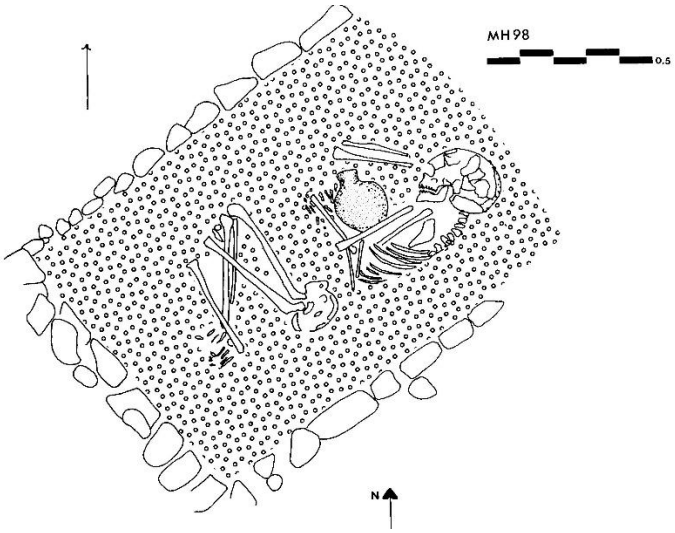

Fig. 107: Stone-lined pit grave MH98 (from Nordquist 1996, Fig.21).

To conclude, the spatial distribution of pits was uneven across the settlement and between the grave groups. Moreover, age differentiation has been observed as sub-adult pits predominate, the adult pits date mainly to the early phases and they had more often covers and floors. Possible wooden boxes, on the other hand, were only used for foetuses and neonates. Gender differentiation in the use of pits is possible, but it is based on small sample.

c. Cist graves

33 cists (30% of the graves) of various types have been excavated at Kastraki. This was the second most frequent grave type in Kastraki. Most of them (20) are dated generally to the MH period. The dating of the remaining 13 cists is shown on the Table 109. Based on these data, it can only be safely noted that cists were used at Kastraki already from the MH I period. Their frequency seems to increase towards the MH III–MH III/LH I period, but we have to keep in mind that most of the cists are undated.

The percentage of cists at Lerna was higher than Kastraki (45.5%). According to Zerner however (personal communication), cists first appear at Lerna during the MH II period. Their higher frequency was observed during the late phases of the period under study.

Date	**No of cists**
MH I	4
MH II	1
MH III	6
MH III/LH I	2

Table 109: distribution of cist through time

Spatial distribution

Cists have been found at all areas of the settlement but their frequency varied between the grave groups. Therefore, cists are totally missing from groups 1, 2, 3, 7, 9 and 12, while most of the graves in group 4 and all graves in group 15 were cists. Moreover, mainly cists (and one pit) have been found on the Acropolis. It is difficult however to ascertain at what extent this distribution reflects chronological differences in the use of each group.

Age and gender

19 adults (50% of the adults) of different age categories and 17 sub-adults (22% of the sub-adults) have been buried in cists. All age categories, except from OA, are represented (Table 110). Nevertheless, neonate is the less frequent age category found in cists.

Of the adults, seven were males (50% of all male) and seven females (77.8% of all female).

It becomes therefore obvious that adults predominate in the cist graves. Moreover, women were more often buried in a cist. The same pattern has been observed in Lerna, although there the difference between males and females is less marked (males: 55.5%, females: 63.3%).

Age group	**No of skeletons**	**%**
Neonate	6 out of 31	19.3%
Infant	1 out of 7	
Child	1 out of 2	
Sub-adult (unknown age group)	9 out of 32	
Juvenile	0 out of 0	
YA	4 out of 7	57%
PA	5 out of 8	62.5%
MA	3 out of 3	60%
OA	0 out of 1	
Adult (unknown age group)	7 out of 21	

Table 110: distribution of different age categories in cists

Furnishings

12 cist graves (36.4% of the cists) were found covered with one or more stone slabs. The existence of a cover was unclear in two graves (MH72, MH108). Only five of the covered cists, however, have been dated (MH I: 1, MH II: 1, MH III: 1, MH III/LH I: 2) making the chronological analysis problematic. It seems though, that covers were used throughout the period. Five adults, of which two females and one male, and eight sub-adults were found in covered cists.

A floor was found in 18 cist graves (54.5% of the cists). Once, the existence of a floor was uncertain (MH108). Usually the floors were constructed from pebbles. Once, however, clay (MH60) and once pebbles and shells were used (MH109). At grave MH18 it is unclear from the description whether clay or pebbles were used.

A dating is available for seven of the cists with floors. Most of them date to the late part of the period under study (MH I: 2, MH III: 3 MH III/LH I: 2). 14 adults, of which five were males and five females, and eight sub-adults were buried in cists having floors. At

seven cists covers and floors were combined. These were mainly adult burials (3) or burials where adults and sub-adults were buried together (2).

We see therefore, that although covers have been more often associated with sub-adult cists, floors were found in more adult graves. The frequency of both furnishings was considerably higher than at pits. Similar percentages of covers and floors at cist graves have been observed at Lerna.

Moreover, a skeleton cover was found upon three skeletons. Usually clay, once mixed with shells, was used to cover the skeletons. Once, two stones were found upon the skeleton chest together with the skeleton cover (MH29). Skeleton covers were associated both with adult and sub-adult burials.[121] Two of them date to the MH III period. They were both found in group 4, at the courtyard area west of House D. The third grave was found in group 15, on Terrace III.

Marker

Again, no marker has been found.

To summarize, cists were used already from the MH I period in Kastraki, primarily for adult burials. Age differentiation was also observed in the use of grave covers and floors. The distribution of cists is not even across the settlement and between the grave groups. However, the temporal pattern is obscured as most of the cists are undated.

If we now turn to cist construction, five different sub-types have been found in Kastraki: a. cists with walls formed of vertical placed stone slabs, b. cists with walls formed of vertically placed mud-bricks, brick cists, c. cists with walls formed of horizontally placed stone slabs or irregular stones, d. mixed type, e. semi-cist graves (Chart 122).

i. Cists with walls formed of **vertical placed stone slabs (Cist A)**.

This was the most common type of cist at Kastraki and Lerna. 17 cist graves made with vertically placed slabs have been found at Kastraki (Fig. 108). Only three of them are dated, making any inferences for change through time impossible (MH II: 1, MH III: 2, MH III/LH I: 1).

[121] MH29: thick layer of soil and clay containing shells, PA male; MH34: clay, the upper part of the skull was left uncovered, sub-adult; MH60(?): sand and clay, female and neonate(?).

Spatial distribution

Cist A graves were found at different areas of the Lower Town and on the Acropolis. No clear pattern concerning their distribution into grave groups emerges. It should be noted however, that all cists in groups 8, 10 and 13 were constructed with vertically placed slabs.

Age and gender

Four adults[122] and 12 sub-adults[123] were buried in this type of cist. This was the most common cist grave for sub-adult burials.

Furnishings

Eight cist graves of this type were covered. Floor was found in seven graves. Cover and floor were combined twice, in a sub-adult grave and in graves where an adult and a sub-adult were buried together.

Fig. 108: MH18: Cist with walls formed of vertical placed stone slabs (from Frödin & Persson 1938, Fig.92).

ii. Cists with walls formed of vertically placed mud-bricks, **brick cist**s (**Cist B)**

Two brick cist graves have been found in Kastraki. One of them dated to the MH III period (MH20) and the second one (MH63) is undated (Fig. 109). In Lerna a MH III horizon has been observed when the frequency of brick cists was significantly higher.

[122] 1 YA, 1 PA, 2 adults
[123] 3 neonates, 1 child, 8 sub-adults

Spatial distribution

The two graves were found in different areas of the Lower Town.

Age and gender

A PA female and an infant were buried in this type of grave.

Furnishings

Both graves were uncovered and they both had pebble floors.

Fig. 109: MH63: brick cist (from Nordquist 1996, Fig.16a).

iii. Cists with walls formed of **horizontally placed stone slabs or irregular stones** (**Cist C**)**:**

Six cists made of horizontally placed stones have been found in Kastraki (Fig. 110). Three of them date to the MH I period and the remaining is undated. On the contrary, in Lerna this was a very late type of cist.

Spatial distribution

Graves of this type do not cluster in one area.

Age and gender

This grave type was used almost exclusively for adults (6), males (2) and females (2). Once, a neonate was buried together with and adult (MH101). The same age differentiation has been observed in Lerna.

Furnishings

Half of the graves had pebble floors. A cover on the other hand may once have existed upon a disturbed grave (MH108).

Fig. 110: MH101: Cist with walls formed of horizontally placed stone slabs (from Frödin & Persson 1938, Fig.108).

iv. Mixed type: cists with some walls formed of vertically and some of horizontally placed slabs or mud-bricks or house walls (**Cist D)**

Seven cist graves of mixed type have been excavated at Kastraki (Fig. 111). Most of the dated graves come from the later phases (MH I: 1, MH III: 2, MH III/LH I: 1). However, some caution is necessary because of the small sample. A similar percentage of mixed type cists were also found at Lerna. At this site as well graves of this type are mainly date to the late phases of the period.

Spatial distribution

Mixed type cists have been found at different areas of the Lower Town. Three of them, however, were found in group 4.

Age and gender

Six adults, of which three were males and two females (2 adults, 1 YA, 1 PA, 2 MA), and three sub-adults (1 sub-adult, 2 neonate) were buried in them. Therefore, more adults have been buried in this type of grave. In Lerna they were also mainly used for the burials of adults.

Furnishings

The two sub-adult and the adult graves were covered with stone slabs. All had floors made of pebbles. Moreover, a skeleton cover was found twice (MH29, MH34), upon an adult and a sub-adult skeleton.

It becomes therefore obvious that a high percentage of furnishings existed in mixed type cists.

Fig.111: MH29: mixed type cist with pebble floor and skeleton cover (from Frödin & Persson 1938, Fig.95).

v. **Semi-cist graves**: only some of the sides, usually two, were formed of slabs, stones, bricks or an adjacent wall (**Cist E)**

One double burial was placed in the only semi-cist grave (MH52-MH53) found in Kastraki (Fig. 112). The grave dated to the MH III period. More semi-cist graves have been found at Lerna. There they first appear in the MH II period and were in use until the LH I period, while their occurrence steadily increased through time.

Spatial distribution

The semi-cist grave was found in group 5.

Age and gender

A MA male and PA female were buried in the grave. In Lerna semi-cists were primarily used for sub-adult burials.

Furnishings

The grave was un-covered and it had a pebble floor.

Fig. 112: MH52-53: semi-cist, double burial (from Frödin & Persson 1938, Fig.100).

Unfortunately, the lack of dating for the majority of the cists makes observation of changes of popularity in sub-types through time impossible. On the other hand, some evidence of age differentiation in the use of different cist types has been observed. For instance, cists A were the most common cist type used for sub-adults, while only a couple of adults were buried in this grave type. On the other hand, only exceptionally

was a sub-adult buried in a cist C grave, together with an adult. It should be stressed however that clear-cut divisions are missing.

Moreover, some subtle differentiation between the groups in the cist types used has also been observed. For example, some of the D cists cluster together in group 4, where three of the five graves belong to this type. Moreover, all the cists found in groups 8, 10 and 13 of Terrace III belong to cist type A.

Let me recapitulate on grave types: in Kastraki age differentiation has been observed in the grave types used for adults and sub-adults. Burial jars were exclusively used for sub-adults, pits were mainly used for sub-adults and the opposite holds true for cists. Moreover, inside the two broad categories, pits and cists, certain sub-types were preferred for individuals of different ages. However, it should be stressed that, with the exception of burial jars, dichotomies are missing and only strong or weaker tendencies have been observed. Gender differentiation in the use of different grave types is not evident. Finally, differentiation has been observed between the grave groups in the use of different grave types.

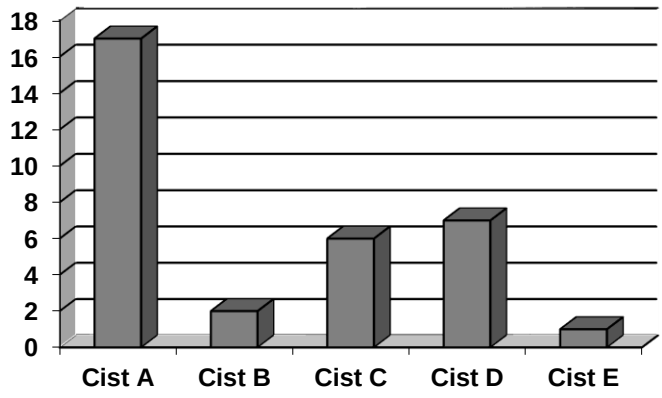

Chart 122: different cist types

d. Stray bones: disarticulated bones found loose in the soil.

The study of disarticulated skeletal remains found in a stratigraphic context, which means without a clear grave context, was the subject of a PhD study carried out by Ingvarsson-Sundström with the title 'Children lost and found. A bioarchaeological study of Middle Helladic children in Asine with a comparison to Lerna' (2003). This study is now published in the ASINE series (ASINE III, 2008). Although the analysis

concentrated on sub-adult individuals, the occurrence of adult bones was also highlighted. According to this analysis (3.702 fragments/complete skeletal elements) the minimal number of individuals[124] recovered from the loose bone material was 103 sub-adults and 36 adults. Of them, 39 sub-adult skeletal remains and 17 adult remains were assigned to published graves. The remaining 71 sub-adult and the 20 adult skeletal parts are missing a grave context.

This material was dated according to the sherds found with it.[125] For the majority of the find contexts, however, only a rough dating was possible (Ingvarsson-Sundström 2008, 33). Therefore, most of the scattered bone material is generally attributed to the MH period. From the more closely dated contexts it turns out that loose bones were found in the settlement strata throughout the period under study.

Ingvarsson-Sundström (2008, 17) refers to a number of reasons which may have resulted to the existence of disarticulated bones, mainly those of neonates and infants. Those burials may have been overlooked during the excavation or they may have been disturbed already in antiquity. Moreover, the distinction during excavation between animal and human bones, especially sub-adult, is sometimes difficult by un-trained excavators and workmen. The physiology of sub-adult bones could be an extra factor for their poor preservation. In addition, taphonomic conditions as well as the excavation methods can influence the preservation and discovery of sub-adult human remains. Finally, cultural factors e.g. grave type and mortuary treatment may have an impact on the preservation of the bones. Nevertheless, she believes that most of the scattered bones in Kastraki, those of sub-adults and adults, come from accidentally disturbed pits and their occurrence does not reflect any intentional activity or differential mortuary treatment. She does not refer to any preferential treatment of some parts of the skeleton. However, the absence of stray bones in the area of House B, where graves are also missing is striking (Nordquist and Ingvarsson-Sundström 2005, 161). It reinforces the hypothesis that the lack of graves was the result of a conscious decision and not simply the outcome of later disturbances in the area above the house.

In any case, the presence and the quantity of those bones clearly indicate that the burial use of the settlement space was much more intense than it was believed until now based

[124] This method attributes the dispersed and fragmented osteological material to its archaeological context, and assigns the bone fragments to different individuals (Ingvarsson-Sundström 2008, 18).

[125] The examination and dating of these sherds were done by G. Nordquist (Ingvarsson-Sundström 2008, 33).

on the picture from published graves alone. Whether these skeletons became disarticulated due to excavation techniques, to disturbances resulted from building activity in antiquity, or to differential mortuary treatment is difficult to establish.
In Lerna many loose human bones have also been found between the animal bones of the settlement. Although these bones have not been studied by an anthropologist yet, sub-adult bones predominate there as well (see chapter 1.3.2e).

2.3.3 Mode of disposal

The mode of disposal of the dead can be informative about social differentiation and about burial ideology. Here age and gender differentiation and status and kin positions will be examined on spatial and, when possible, on temporal terms. Three aspects will be analysed: single versus multiple burials, primary versus secondary treatment and body position and orientation.

a. Single and multiple burials

The study of single versus double or multiple burials can be informative for the individual or the collective status of the deceased.
All the burials found at Kastraki were inhumations. The vast majority of them were single. However, five double[126] and one multiple burial (MH72) have been found (5.4%). The dating of only two of these burials is known; one dates from the MH I (MH98) and one from the MH III (MH52-53) period. Therefore, at Kastraki double burials took place already from the beginning of the period. The same holds true for Lerna.
The most usual combination of double burials was an adult and a sub-adult buried together (MH62, MH90, MH98). Once however, two neonates were buried in the same grave (MH88) and once, two adults, one MA male and one PA female (MH52-53), were buried together. The existence of a second, neonate individual in graves MH62 (adult male), MH88 (neonate) and MH98 (adult) was noticed after the anthropological re-study of the bones (Ingvarsson-Sundström, 2008).
Nevertheless, no evidence of later re-opening of a grave exists. All double and multiple burials must have taken place at the same time. Alternatively, the second individual

[126] MH52-53; MH62; MH88; MH90; MH98 double or multiple: adult+1 or more neonates.

entered the grave before the first had disintegrated. Therefore, no disturbance on the skeleton was caused.

If we study the spatial distribution of double-multiple burials, we observe that four of them (MH62, MH72, MH88, MH90) were found in the same area of Terrace III, in the adjacent grave groups 12, 13 and 15. It seems therefore that at this part of the settlement a recurrent practice was followed.

The percentage of double-multiple burials was slightly higher at Lerna (7.3%), where individuals of similar age were buried together. Moreover, at Lerna some graves were re-opened for a new burial.

To conclude, double and multiple burials were exceptional at Kastraki. Therefore, the individual status of the deceased was emphasised most of the times. In double burials, usually adults and sub-adults were buried together. In those cases, the individuals buried together could have been kin-related. The spatial distribution of those burials may indicate that some groups were more aware in emphasising their common identity.

b. Secondary treatment

Secondary treatment of the skeleton has been possibly attested at two skeletons (MH24, MH25). In the pit grave MH24 (MH II?) the skull of the adult skeleton was missing. On the contrary, in the pit grave MH25 (MH) only an adult skull and few other bones were found. Although the two graves were not found very close together (however in the same area of the Large Trench, SE of House B) it has been proposed that the skeletal remains of the two graves belong to the same individual (Frödin & Persson 1938, 118). However, both graves lack a detailed description of the skeletal elements found in them and a photo or a plan of these two burials has not been published. Therefore, it remains a speculation that the different skeletal parts found into the two different graves belong to the same individual. In any case, what is important is that in both cases the skull was treated differently than the rest of the skeleton. The two graves are not exceptional in any other terms; they were simple, unfurnished pits.

On the other hand, 37 burials were primary. For the remaining 75 skeletons we cannot positively say whether they received primarily or secondary treatment, either because they were disturbed by later occupation either, and mostly, because they are lacking detail description and an excavation photo or plan.

Furthermore, as it was mentioned above, disarticulated human bones have been found in the settlement strata. Although the existence of these bones may, once more, have

been the result of disturbance, intentional secondary treatment, of at least some of these skeletons, cannot be excluded. It remains a possibility that some bones were removed from earlier graves.

Nevertheless, it can generally be said that typical secondary treatment of the skeleton was exceptional in Kastraki and the same holds true for Lerna. As we will see later (chapter 2.7.3b), it was not common at the East Cemetery either.

c. Body position and orientation

The study of body position and of the orientation of the skeleton inside the grave can be informative of age and gender differentiation and can be used to check the coherence in practices of the grave groups. It also raises questions of standardisation in the mode of disposal of the dead.

i. body position

Information about the body position is available for less than the half of the skeletons (Table 111). All of them were buried in contracted position. The upper body lay either on back or on side. However, contracted on back skeletons mostly belong to the late phases.

If we turn to age, sub-adults were more often buried on their side than on their back (Table 112). The same was true in Lerna. Concerning gender, the tendency that is was observed at Lerna to bury women on their left side and men on their right side was not confirmed at Kastraki. Actually, more men were found lying on their left side (8) than on their right (1). Women were found lying both on left (3) and right (3) side.

Finally, few skeletons (5) were found lay on their stomach. Contrary with Lerna, all skeletons buried on stomach were found in single burials. They were all adults, both males (2) and females (2). The three dated burials belong to the early phases of the MH period, while the remaining two are undated. Interestingly, the three early burials (MH99, MH100, MH101) were situated on Terrace II. MH99 and MH100 belong to group 14.

Although the number of dated skeletons is very small, it seems that a larger variety of body positions existed during the early phases (Table 113). As time passes body position became more standardised. Interestingly, extended skeletons are missing from Kastraki.

To sum up, based on body position some inferences of age differentiation have been observed as few sub-adults were buried with upper body on back and only adults were

found in prone position. Moreover, those skeletons cluster in one area. Gender differences were not apparent. Finally, change through time has been observed in the placement of the upper body.

Lower limbs position	Upper body position	Side of legs	Total
CONTRACTED	**On side: 25/ 22%**	Left: 18	**50 skeletons 44 %**
		Right: 7	
		Unknown: 0	
	On back: 20/ 17.5%	Left: 10	
		Right: 8	
		Unknown: 2	
	On stomach: 5/ 4.4%	Left: 2	
		Right: 3	
		Unknown: 0	
	Unknown: 15		**15 skeletons**
UNKNOWN	**Unknown:** 49		**49 skeletons**
		Total	**114 skeletons**

Table 111: body position

	Sub-adult	Adults	Males	Females
Contracted on side	12	13	4	3
Contracted on back	6	14	6	3

Table 112: frequency of body position in age categories and sex grades

	Early phases	Late phases
Contracted on side	8	3
Contracted on back	3	7
Contracted on stomach	3	-

Table 113: frequency of body position through time.

ii. arm position

Here an attempt was made to analyse arm position in the contracted skeletons. Our goal was to examine if arm position was standardised and further, if any pattern emerges regarding age and gender differentiation.

Unfortunately, the arm position of just 19 skeletons is known.

As with Lerna, the following categories were created (Fig. 113, 114):

A. Upper body on back

A1. Both arms folded over chest (1 skeleton: PA female)

A2. One arm across waist and the other on pelvis (2 skeletons: YA male and PAmale)

A3. Both arms along body (none)

A4. One arm across waist and the other on chest (none)

A5. Both arms folded across waist (1 skeleton: PA male)

A6. One arm along body and the other on chest (none)

A7. One arm along body and the other across waist (1 skeleton: YA male)

A8. One arm folded in front of face and the other folded on chest (1skeleton: adult)

A9. One arm folded in front of face and the other across waist (none)

A10. One arm along body and the other on pelvis (1 skeleton: adult)

A11. One arm folded over chest and the other on pelvis (none)

A12. Both arms on pelvis (3 skeletons: adult; PA female; infant)

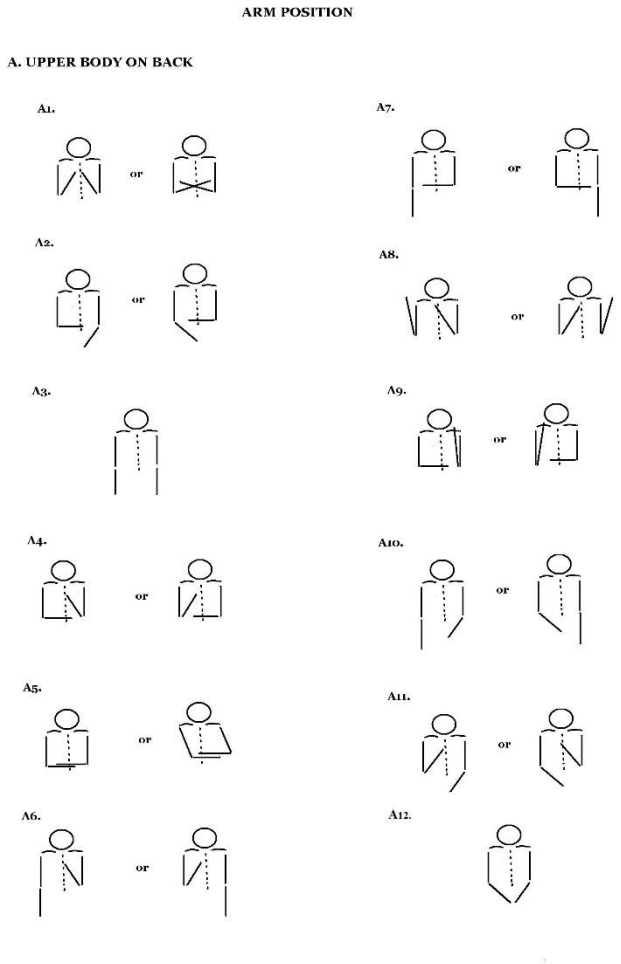

Fig. 113: arm position in contracted on back skeletons

B. Upper body on side

B1. Both arms extended in front of body (none)

B2. Both arms bended toward knees (1skeleton: sub-adult)

B3. The lower arm extended towards knees and the upper bended on ribs (none)

B4. The lower arm bended towards knees and the upper bended on ribs (2 skeletons: neonate; MA male)

B5. Both arms bended in front of face/chest (2 skeletons: sub-adult; OA male)

B6. Right arm (lower or upper) in front of face and left arm bended on ribs (3 skeletons: adult; YA male; PA female)

B7. Lower arm bended in front of body and upper arm along body (none)

B8. Lower arm in front face and upper arm along body (1 skeleton: sub-adult)

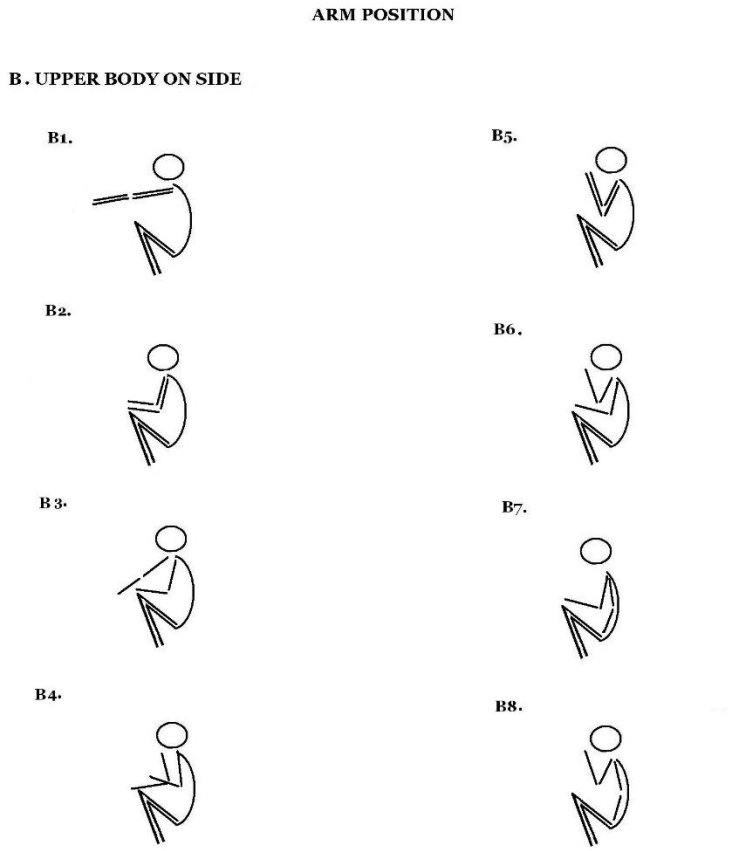

Fig. 114: arm position in contracted on back skeletons

Based on that limited data, no clear pattern or standardization in arm position emerges.

iii. body orientation

The orientation of the head is known for 64 skeletons. In accordance with grave orientation the majority of the deceased were buried along the NE-SW axis, thus following the slope of the hill. To facilitate the study, the skeletons were divided into two broad categories; skeletons found with skull towards, more or less, to north (N, NE, NW) and skeletons with skull towards, more or less, to south (S, SW, SE). Skeletons buried with head towards E and towards W were kept apart (Table 114).

It became therefore obvious that most of the skeletons at Kastraki were buried with skull towards N, which is the lower part of the hill. Both adults (19) and sub-adults (13) were buried in this body orientation, while more females (6) than males (3) have been found. Most of the dated graves with skeletons orientated towards N belong to the early phases (Table 115). However, also many deceased, adults (15) and sub-adults (11)

were buried with their head towards S, which is the upper part of the hill. In contrast with skeletons found with skull towards N, more males (8) than females (2) were buried with their skull towards S. These skeletons date to the early and the late phases. Finally, only occasionally skeletons have been found with skulls towards E or W (Table 115). More particularly, only sub-adults were buried with head towards E and all of them date to the early phases. Sub-adults (3) and adults (2; 1 male and 1 female) have been found with skull towards W. The three dated burials come from the late phases (Table 115).

We see therefore, that a general preference was noted to place the head towards N. Moreover, some differentiation existed between males, whose head was more often turned to S, and females, whose head was more often turned to N, already from the early phase of the period under study. Finally, some age differentiation also seems to have been existed, as only sub-adults were buried with their head towards E during the early phases of the period under study. However, it should once more be emphasised that the numbers are small.

	N-S	**NE-SW**	**NW-SE**	**E-W**	**W-E**	**S-N**	**SW-NE**	**SE-NW**	**Unknown**
	9	18	5	3	5	2	15	7	50
Total	**32**			**3**	**5**	**24**			

Table 114: body orientation

	N	**S**	**E**	**W**
Early phases	17	4	2	-
Late phases	5	5	-	3

Table 115: skull orientation through time

2.4 KASTRAKI: THE FINDS

Let me finally turn to the objects deposited in the burials.

2.4.1 Introduction

41 objects have been found in relation to 26 graves (23.6%) at Kastraki. The number of objects and the percentage of graves containing them are considerably lower than Lerna (164 objects, 45.5% of the graves). However, the same general categories of objects are present at both sites.

All the pottery finds are considered as real offerings, as objects that were deliberately deposited in the grave. Ten of the non-pottery finds, on the other hand, are treated as associated finds. Most of them were stone objects of different categories e.g. obsidian chips and flakes (5 graves) and stone axes (2 graves). Twice, bronze objects were treated as associated finds and once a terracotta whorl.

In addition, organic remains were found in three graves. Twice, these remains are treated as associated finds.

As it has been done for Lerna, correlations with age categories, sex grades, grave types, as well as between the finds are examined for each find category. Furthermore, the spatial distribution of the objects and, in particular, their distribution in the different burial groups is analysed. However, changes through time are not easily reconstructed at Kastraki. Through the analysis status differences as they might have been expressed in the quantity, quality and the variability of the grave finds are examined.

2.4.2 Pottery

Pottery was the most common object category used as offering.

16 vessels have been found in 12 graves (10.9%) at Kastraki. More than one vessel was deposited only in two graves (MH18, MH107). Many more vessels (68) have been found at Lerna (19.1% of the graves). Moreover, at Lerna in half of the graves containing pottery more than one vessel was deposited.

During the **MH I** period, two vessels were deposited in two burials, one single adult and one double adult-infant burial. During the next **MH II** period again two vessels were placed in two burials, both adult (1 male, 1 female). During the **MH III** period the number of vessels deposited in the graves increased. Seven vessels were placed in six burials, three adults (male-female-?), two sub-adults and one double adult (female-male) burial. This was the first time that pottery was deposited in single sub-adult burials and that two vessels were found in a probably adult burial (MH107). Finally,

during the transitional **MH III/LH I** period more than one vessel was always deposited in the graves. In particular, five vessels were found in two graves, one adult and one sub-adult. The same general trend of depositing more than one vessel in the graves during the late phases of the period has been observed also at Lerna. At this site, however, pottery was deposited in single sub-adult burials already from the MH I period, and an increase, or a general 'scaling-up' was observed already in the MH II period.

The number of sexed skeletons is very small to allow any gender analysis.

Considering grave types, most of the graves containing pottery were cists. The same was true at Lerna. The grave type, however, was closely related with date. Therefore, the seven cists containing pottery dated from the late phases (MH III-MH III/LH I), while the four pits with pottery were earlier (MH I/II-MH III) and a stone-lined pit the earliest (MH I).

Turning now to burial groups, not all of them contained graves with pottery (Table 116). Moreover, half of the graves containing pottery (6 graves) were found at the Large Trench of the Lower Town. At this area late graves, and later bigger houses have been found.

Group	Area	No of graves	No of graves with pottery
3	LT, Large Trench	3	1 (MH31)
4	LT, Large Trench	3	2 (MH32, MH34)
5	LT, Large Trench	12	1 (MH52-53)
6	LT, Large Trench	9	2 (MH20, MH21)
8	LT, Terrace III	8	1 (MH80)
14	LT, Terrace II	5	1 (MH98)

Table 116: distribution of graves containing pottery into different grave groups

To sum up, only few burials in Kastraki contained pottery. These were primarily adult cists graves dating from the late phases. However, none of the graves contained a big amount of pottery. Some differentiation between the grave groups was noticed but it was not pronounced.

a. Shapes

In this section the kind of vessels deposited in the graves will be examined.

i. cups: six cups (37.5% of the pottery) have been found in five graves at Kastraki (Fig. 115, 116). This was the most common pottery shape. Four of the cups were one-handled and two had a loop handle upright rim.[127] They were deposited in three adult and two sub-adult burials. They mainly dated from the late phases of the cemetery (5 cups). Similar percentage of cups was found at Lerna. At Lerna, however, one-handled cups and kantharoi, which are totally missing from Kastraki, predominate.

Pottery sets

Once, two cups were deposited together in a possibly adult burial (MH107) and once, a cup with a loop handle was deposited together with three jugs in a sub-adult burial (MH18). Therefore, the existence of cup-jug set is not particularly strong at Kastraki. Interestingly, however, the only cup-jug set was found in a MH III/LH I grave (MH18). During the same period the cup-jug set sets in also at Lerna.

Fig. 115: Vessel MN4152 from grave MH18 and MN3593 from grave MH20 (photos by the author).

[127] We do not know the type of the cup found in grave MH38 (ASINE I, 120). There is no photo of it in the publication (Frödin & Persson 1938,) and no reference in ASINE III:1 (Nordquist 1996). The cup was not found at the storerooms of Nafplio Museum (2006).

Fig. 116: Vessels MN2250 and MN2252 from grave MH107 (photos by the author).

ii. jugs: five jugs (31.25% of the pottery) have been found at Kastraki (Fig.117, 118). This was the second most common category. They were deposited in two adult and one sub-adult burial. Most of them were MP jugs of simple type (4 jugs). One plain jug possibly dated to the MH II period (MN 3809) and the remaining four dated from the transitional MH III/LH I period.

The percentage of jugs was a little lower at Lerna (22.4%). At this site as well, the percentage of jugs increased during the transitional MH III/LH I.

Pottery sets

As it was stated above, once, three jugs were deposited together with a cup in a sub-adult burial.

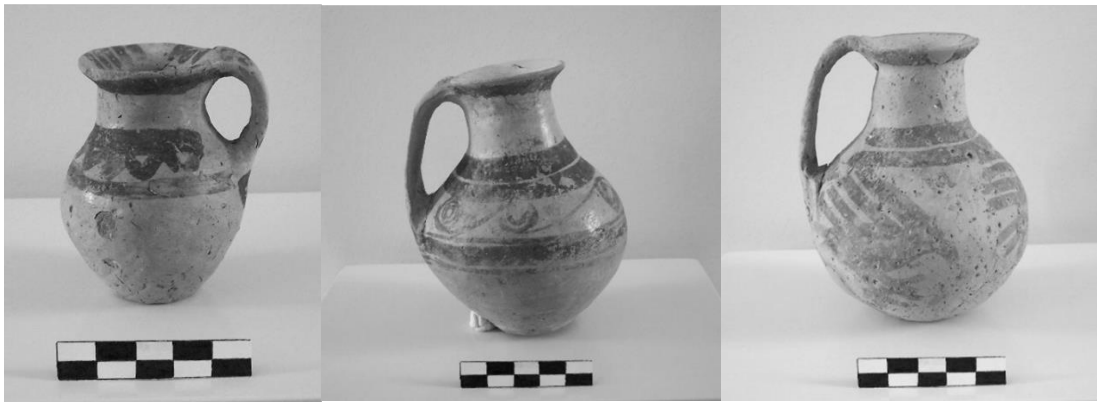

Fig. 117: Vessels MN4146, MN4148 and MN4153 from grave MH18 (photo by the author).

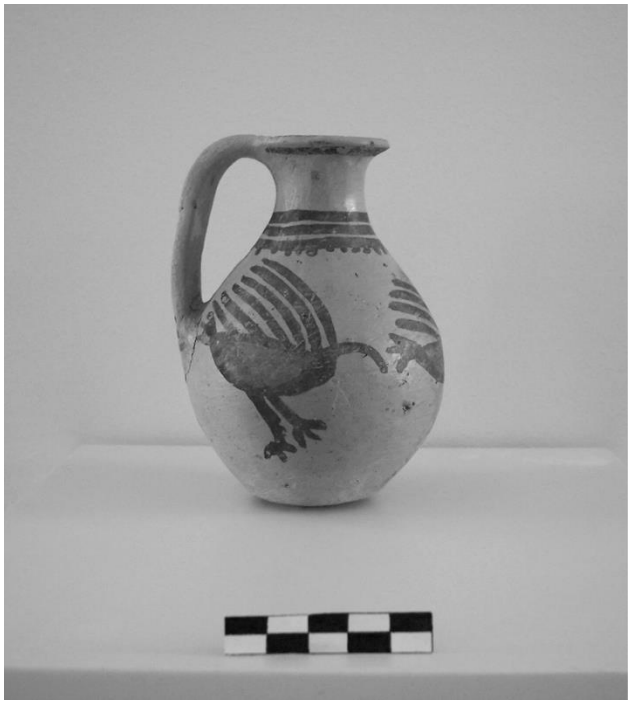

Fig. 118: Vessel MN2253 from grave MH4 (photo by the author).

iii. jars: no jars have been found in the graves at Kastraki. At Lerna on the other hand, jugs comprise 14.5% of the vessels.

iv. bowls: three bowls (18.7% of the pottery) were found in two single, male burials and one double male-female burial. Therefore, bowls were correlated only with adult burials at Kastraki. The three bowls dated to the MH II/III-MH III period. At Lerna most of the bowls dated to the late phases of the period but they were found with more sub-adult than adult burial.

Pottery sets

No other vessels were deposited with the bowls.

v. unique shapes: once, a feeding bottle (MN4155) was deposited in a sub-adult burial (MH32), possibly dated to the MH III period (Fig. 119). No other vessels were found in this grave. At Lerna a LH I feeding bottle was found in a grave where no skeleton was preserved.

Finally, a flask or bottle (MN4133) was deposited in a double adult-neonate burial (MH98) dated to the MH I period (Fig. 120). Again, no other vessels were deposited in the grave. At Lerna a flask dated to the SGE was found in a neonate burial.

Fig. 119: Feeding bottle MN4155 from grave MH32 (photo by the author).

Fig. 120: flask or bottle MN4133 from grave MH98 (photo by the author).

We see therefore, that the pottery repertoire from the Kastraki graves is restricted to three basic shapes, cup, jug and bowl. Compared to Lerna, the number of vessels is smaller, the repertoire is narrower and pottery sets are less common. However, overall similar pottery shapes were used and an increase in the amount of pottery through time was observed in both sites. In Kastraki though the increase was less gradual.

b. Use categories

The vessels described above fall into three broad categories concerning their use: eating and drinking; pouring; storing. The study of the use categories aims to clarify first,

which functions of the vessels were chosen for a burial context and, second to explore possible differentiation between different sections of the population.

i. eating and drinking: this was the most common use category (9 vessels). All cups and bowls belong here. They were placed in adult and sub-adult burials.
ii. pouring: the five jugs, the flask and the feeding bottle may have been used for pouring liquids (7 vessels). With the exception of the flask, the remaining pouring vessels dated from the late phases of the period. This pattern may indicate that the practice of pouring liquids during the funeral or of depositing pouring vessels was rather late at Kastraki. Pouring vessels have been found in adult and sub-adult burials.
iii. storing: no storing vessels have been found.

To conclude, eating and drinking vessels considered more appropriate for use in burials, while pouring vessels became more common during the late phases. Age and gender differentiation has not been observed. Eating and drinking vessels were the most common use category also at Lerna. The frequency of pouring vessels increased also at this site during the SGE.

c. Size

Let me now turn to the size and examine its importance for the selection of the vessels deposited in the burials. The analysis is focused on miniature, small and very large vessels.
Only one miniature vessel has been found at Kastraki. It was a jug (height: 7.3cm; diameter of mouth: 4.3cm) dated to the transitional MH III/LH I period. It was found in a sub-adult[128] (MH18) burial. Miniature vessels from Lerna also date to the SGE and they were mainly found in sub-adult burials.
Additionally, four small vessels have been found in the graves. Two cups (height: 6.5cm; diameter mouth: 6.0cm), one jug (height: 10.5cm; diameter mouth: 5.3cm) and the feeding bottle (height: 7.7cm; diameter mouth: 6.0cm) belong to this size category. Two of them dated to the early phases of the MH period (MH I/II-MH II) and two to the late phases (MH III). They were deposited both with adult (2 vessels) and sub-adult (2 vessels) burials. Small vessels in Lerna were primarily related with sub-adult burials.

[128] 'child' according to the excavator.

Finally, large vessels are missing from the burial context in Kastraki. In Lerna large vessels exist but they were not very common.
The remaining eight vessels were of medium size.[129] They cover all phases of the period under study. No pattern emerges for the distribution of medium size vessels.

To conclude, no clear pattern concerning the size of the vessels deposited in the graves emerges. Miniature vessels were probably deposited in sub-adult burials during the late phases but the existence of just one case makes conclusions tentative. Large vessels were probably considered inappropriate for use as burial offerings.

d. Wares

The aim here is not to give a detailed and systematic study of pottery wares. Rather, general attitudes towards the quality of the pottery deposited in the graves are examined. A general distinction between fine-medium and coarse wares has been made. Moreover, the existence of imported vessels is examined as an indication of external relations of the individual and the group where they were found.
Both coarse (25%) and medium-fine (75%) wares have been found at Kastraki. However, fine-medium wares predominate, especially in the late phases. More particularly, during the early phases two vessels were made in fine-medium ware and two in coarse ware. During the late phases six fine-medium ware and two coarse ware vessels were deposited in the graves.
We can therefore conclude that in Kastraki medium and fine ware vessels were considered more appropriate for burial use during the late phases. In the early phases, coarse and medium-fine wares were used with the same intensity. In Lerna fine-medium wares predominate throughout the period.

*Impor*ts

The existence of imported vessels in the burials can be informative for external relations of the deceased and the group in which he or she belonged.

[129] The three bowls found in graves MH21, MH31 and MH52-53 were not found in the museum's store rooms (2006).

At Kastraki three vessels were probably imported. A MH I DB flask (MN4133, MH98) may have been imported by an unknown region. The flask was found in a double adult-sub-adult burial on Terrace II, group 14.

A burial jar (MN2251) dated to the MH II period was imported from Aegina (Fig. 121). It was used as burial container of a sub-adult individual (MH17). The grave does not belong to any of the burial groups but it was found at the Large Trench as most of the graves containing pottery.

Finally, a MH III GM cup (MN2252, MH107) may have been imported from central Greece or it was a local product. It was found in a possibly adult burial, situated at the Acropolis.

It becomes therefore obvious that no temporal or spatial pattern emerges. Imported vessels date to all phases and do not cluster in one area. Age and gender differentiation has not been observed. It can be argued that the external relations of some individuals, rather than groups, were emphasised through the deposition of imported pottery during the funeral.

Imported items have been found much more often in the settlement than in the graves. Moreover, the distribution of imported pottery was uneven between the late houses. More imported pottery comes from larger houses or house complexes (Voutsaki 2010c, 774, 776; 2010e, 91). For instance, 22% of the sherds in House B are Aeginetan and 5,3% of the LD imports from S Peloponnese or Lerna have been found in the same house. Small quantities of Minoan and Cycladic sherds also exist. On the whole, in Kastraki less imports than in Lerna have been found (Nordquist 1987, 49-50, 62-63).

At Lerna, many more imported vessels from different areas of the Aegean and the Mainland have been found in the settlement and in the graves. Moreover, in Lerna the distribution of imported pottery was uneven between the grave groups. At this site the external relations of some groups, rather than individuals seem to have been emphasised.

Fig. 121: Burial jar MN2251 from grave MH17 (photo by the author).

e. Preservation

In this section breakage patterns of the pottery found in the graves will be examined. Our goal is to examine if breakage patterns change through time.

i. intact or broken but whole preserved: nine vessels were well preserved when they were deposited in the graves. All of them, however, were chipped on rim and/or on handle indicating that they were used before they were placed in the graves. One vessel dated to the early phases (MH II) and eight to late phases (MH III-MH III/LH I).

ii. broken, sherds missing: two vessels[130] were probably broken before they were deposited in the graves. Once small sherds from body and rim were missing (MN2252) and once the handle was missing (MN3593). Both vessels dated to the MH III period.

iii. broken, more then 1/3 missing: only a part of three vessels was deposited in the graves. Once, different parts of base, body and rim were missing (MN4133), once only the base was found (grave MH52-53) and once (grave MH21) the vessel was found in

[130] The bowl found in Grave MH 31 was broken but we do not know how complete it was. The vessel was not found in the museum's storerooms (2006).

fragmentary condition.[131] Two of the broken vessels dated to the early phases (MH I, MH II/III) and one to the late phases (MH III) of the period.

iv. broken, single sherd preserved: In some graves the existence of single sherds found in the grave fill was noticed. All but one contained also more complete vessels (MH18, MH34, MH38, MH80, MH98, MH100). Such a pattern may indicate that the existence of sherds was not accidental.

We see therefore that a tendency emerges for placing more complete vessels in the graves during the late phases. The same tendency was clearly observed also at Lerna.

f. Position

The placement of the vessels in relation to the body will be discussed here. Age and gender differentiation and change through time will be examined.

i. around skull: seven vessels were deposited in the area around the skull (43.7%). These vessels dated both from the early (3) and the late (4) phases. The area around the skull was the most frequently selected area for the placement of the vessels also at Lerna, especially during the late phases.

ii. between chest and pelvis: two vessels were found next to chest/pelvis of two adult skeletons. Moreover, four vessels were deposited next to the body of a sub-adult burial (MH18) dated to the late phases.

iii. close to legs: three vessels (18.7%) were deposited close to the feet of two adults, during the late phases. There were no other vases in these tombs, so the selection of the leg area was not made due to lack of space. At Lerna the area close to the legs was the less often selected area for the placement of a vessel.

iv. generally in the grave: none. The exact position of all the vessels found at Kastraki graves is known.

v. outside or above the grave: no vessels have been found outside or above the grave. At Lerna more vessels were found outside or above the graves towards the later phases of the period under study. Once more, a less 'complex' picture is observed in Kastraki than in Lerna. No later re-opening or re-visiting of the graves has been attested. The total absence of markers made of non-perishable material reinforces the hypothesis that the graves were not re-visited.

[131] The vessel was not found in the museum's storerooms (2006).

We see therefore that no clear age or gender differentiation was observed in the placement of the pottery in relation to the skeleton. Overall, vessels were more often deposited close to skull. As time passes, vessels were also placed in other areas.

Let me repeat the main observations made on pottery. In general, only a few graves at Kastraki contained pottery and none of them contained a large amount of vessels. During the late phases however, a slow increase in the amount of pottery found in them has been observed. The late graves containing pottery were cists. During this period, there is therefore a correlation between grave type and pottery offerings. The pottery repertoire from the Kastraki graves is restricted. Cups and jugs were the most common vessels found in the graves. As a result, eating and drinking vessels predominate through time. During the late phases however, pouring vessels became more frequent. At the same time more complete vessels were put in the tombs.

Some age differentiation in the deposition of pottery has been observed. Overall, vessels were more often deposited in adult burials. Pottery in single sub-adult burials was first deposited during the MH III period. Gender differentiation has not been observed.

Finally, some differentiation between the grave groups was noticed but it was not pronounced. On the other hand, the few imported vessels did not cluster in one group.

2.4.3 Non pottery finds

The aim of the analysis here is to examine the variability of the burial assemblage and, once more, to raise questions of differentiation between groups and individuals based on the objects deposited in the graves.

24 objects other than pottery have been found in relation to 14 graves (12.7%). Again, both the number of finds and the percentage of graves containing them were considerably higher at Lerna (88 objects, 33.2% of the graves). In addition, organic remains of animals and shells have been found in three graves. As it was done for Lerna, these finds are divided here into six broad categories: tools, ornaments, tools or ornaments, weapons, miscellaneous objects and organic remains. In each category the objects are examined according to their use and to their material. When possible, the animal and shell species are examined.

Tools, ornaments and objects that could have been either tools or ornaments were the most common finds (Charts 123, 124). The same object categories were also the most frequent at Lerna. At both sites the composition of the offering assemblage is very variable. Different combinations of objects have been found making each burial unique.

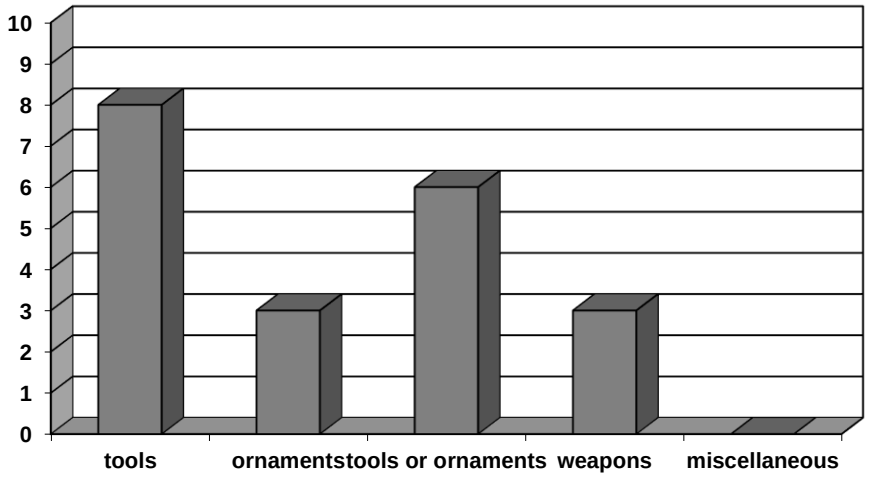

Chart 123: number of objects in each category

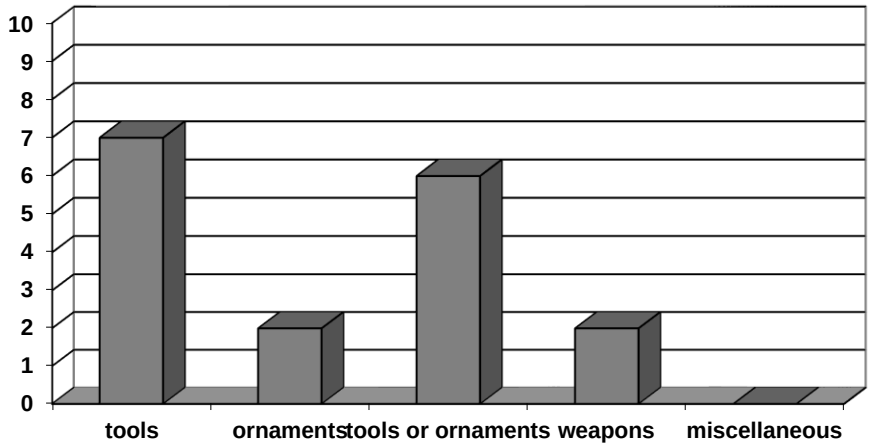

Chart 124: number of graves with objects of different categories

Most of the non-pottery objects and the organic remains were found in cist graves (10). From the four dated cists, one belonged to the early and three to the late phases. Non-pottery objects were also found in six pits (Chart 125). A stone-lined pit dated to the early phases, while two other dated pits belonged to the late phases.

The distribution of non-pottery objects into cists and pits at Kastraki is in accordance with the distribution observed at Lerna. Nevertheless, at Lerna non-pottery objects have also been found in jar burials.

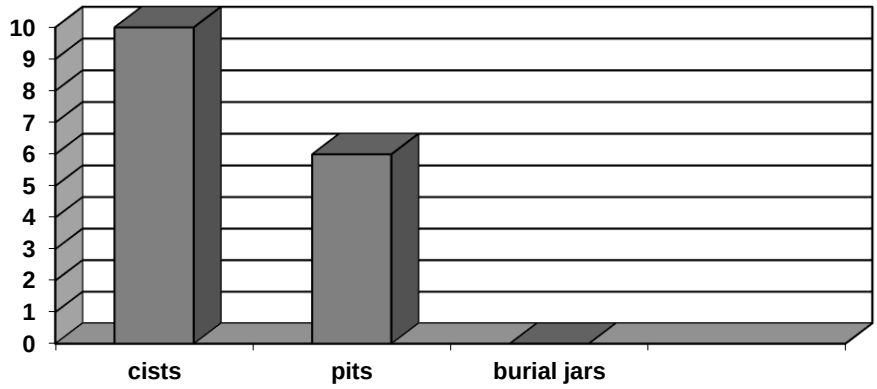

Chart 125: distribution of graves with non-pottery objects (total 16) into grave types

In contrast with graves containing pottery, graves containing non-pottery finds belonged mainly to burial groups situated on Terraces II and III of the Lower Town and in the Acropolis area (Table 117). Moreover, this spatial pattern has a chronological dimension. Most of the dated graves from Terraces II, II and the Acropolis are early, while later graves containing non-pottery finds have been found in the area of the Large Trench. Some caution is, however, necessary as many graves are undated.

Non-pottery objects have been mainly found in single (8) and double (1) adult burials or in burials where adults and neonates (2) were buried together. Only occasionally non-pottery objects were found in neonate-infant burials (3).

Non-pottery objects were therefore primarily associated with adult burials. As we have seen, the same holds true also for pottery, However, no obvious gender differentiation emerges, presumably because of the dearth of sexed skeletons.

Group	Area	No of graves with non-pottery finds
1	LT, Large trench, West	0
2	LT, Large trench, West	0
3	LT, Large trench, West	0
4	LT, Large trench, West	0
5	LT, Large trench, West	1 (MH52-53)
6	LT, Large trench, East	1 (MH23)
7	LT, Large trench, East	0
8	LT, Terrace III	0
9	LT, Terrace III	0
10	LT, Terrace III	0
11	LT, Terrace III	1 (MH63)
12	LT, Terrace III	1 (MH67)
13	LT, Terrace III	2 (MH72, MH74)
14	LT, Terrace II	2 (MH97, MH98)
15	LT, Terrace III	3 (MH59, MH60, MH62)
No group	Acropolis	2 (MH107, MH109)

Table 117: distribution of graves containing non-pottery finds into different grave groups

I will now examine each find category separately.

a. Tools

Eight tools were related with seven graves at Kastraki. Three of them, two axes and some flakes (MH97), are treated as associated finds. Flakes and axes were made of stone, awls were made of bone and a pair of tweezers was made of bronze. The grave with the bone awl (MH98) dates to the MH I period and the grave with the bronze tweezers to the MH III period. The remaining graves are undated.

Graves containing tools were mainly found on Terraces II and III (5 graves). On Terrace III two of three graves containing tools belong to grave group 13.

Tools were mainly found in adult graves, males and females. Once, a bone awl was found in an infant burial (T3:22) and once an axe was associated with a neonate burial

(T3-2:07). In Lerna tools were also mainly associated with adult graves and stone tools were only found in adult burials.

i. Chipped stone tools

More than two obsidian flakes were found in a male burial (MH97) dated generally to the MH period. One of the flakes was deposited close to pelvis. The remaining (unknown how many) flakes were found in the grave fill.

In addition, obsidian chips were found in three single adult and one double adult-neonate burials. The adult burials were those of two females, one male and an adult individual of un-known sex. Only one of these burials (MH59) is dated to the MH I period, while the remaining three are un-dated. Three of the graves containing chips (MH58, MH59, MH60) were found in the same area of Terrace III, associated with Houses T and S. MH59 and MH60 belong to grave group 15. The fourth (MH109) was found on the Acropolis. Although a pattern seems to emerge, as chips were correlated with adult burials and the graves where they were found cluster in one area, they are all treated as associated finds.

Chipped tools were mainly found in adult burials at Lerna as well.

Sets of objects

No other objects were found together with chipped tools.

ii. Ground stone tools

A basalt axe and a celt or axe were associated with a female (MH74) and a neonate (MH72) burial respectively. Both graves are un-dated and they were found in grave group 13 of Terrace III.

Ground stone tools were only occasionally found with adult and sub-adult burials at Lerna as well.

Sets of objects

No correlations between ground stone tools and other objects emerge.

iii. Bone tools

Three bone awls have been found in two adult[132] and one infant burial. Two of them (MH98, MH109) were deposited in the area of the lower extremities of the adult individuals. The exact position of the third awl (MH63) is unknown. Grave MH98 dates

[132] Bones of one or two neonates (T2:01) were later (Ingvarsson-Sundström 2003) assigned to grave MH98, where an adult individual (2FA) was also buried. The bone awl however, was found in relation to the adult skeleton.

to the MH I period, while the other two graves are un-dated. The awls were found at graves belonging to different areas.

At Lerna bone awls were also the only bone tools found. They were mainly associated with adult-juvenile burials.

Sets of objects

No correlations between bone tools and other objects emerge.

iv. **Terracotta tools**

No terracotta tools have been found in the graves at Kastraki. In Lerna a couple (6) of them was found.

v. **Bronze tools**

A pair of bronze tweezers has been found in a MH III double male-female burial (MH52-53). The tweezers were deposited between the two skeletons, in the skull area. This was the only grave from the Large Trench containing tools. It belongs to grave group 5, in Room XXIII, House E.

No bronze tools have been found at Lerna.

Sets of objects

No correlations between bronze tools and other objects emerge.

Let me summarize on tools; tools were the most common non-ceramic objects found in early and late graves at Kastraki. Some age differentiation has been observed in the deposition of tools, as they were mainly found in adult graves. The only bronze tool dates from the MH III period. The spatial distribution of tools was uneven; chipped and ground tools were found on Terrace III and on the Acropolis, while the bronze tool was found in the Large Trench. Most graves with stone tools belong to grave groups 13 and 15.

b. Ornaments

Three ornaments have been found in two adult burials of unknown sex. However, that number may have been a little higher if pins and whorls, or at least some of them, were used as ornaments. The two graves were found at different areas of the settlement. Bronze beads and rings were the only ornaments found.

More and more diverse ornaments (29) have been found in more graves (19) at Lerna. At Lerna however, bronze, but also silver, ornaments are exceptional. Golden

ornaments are missing from both sites. In contrast with Kastraki, in Lerna ornaments were usually found in sub-adult burials.

i. Beads

Two bronze beads have been found in an adult burial (MH4) dated to the transitional MH III/LH I period. The exact position of the beads in relation to the skeleton is unknown. The grave was found in the Large Trench, but does not belong to any of the designated groups. The bronze tweezers were also found in the same area of the Large Trench, but in a different grave.

In contrast with Kastraki, at Lerna beads were mainly found in sub-adult burials and the same holds true for bronze beads. Bronze beads were found in LH I graves.

Sets of objects

No correlations between beads and other objects emerge.

ii. Rings

Two bronze ear-rings have been deposited at either side of the skull of an adult individual in a MH I grave (MH98).[133] The grave was found in group 14 of Terrace II. Bronze rings were first deposited in graves at Lerna during the MH II period. Once more, rings at Lerna were primarily found in sub-adult burials.

Sets of objects

No correlations between rings and other objects emerge.

iii. Other

No ornaments of types other than beads and rings have been found.

To summarize the observations on the few and simple ornaments found, ornaments were first deposited in the graves during the MH I period. They were only found in adult burials. Therefore, age differentiation in the use of ornaments has been observed. The few ornaments found in Kastraki were exclusively made of bronze.

c. Pins and whorls

In this category objects are included that could have been used either as tools or as ornaments.

[133] Bones of one or two neonates (T2:01) were later (Ingvarsson-Sundström 2003) assigned to grave MH98, where an adult individual (2FA) was also buried. The bronze rings however, were found in relation to the adult skeleton.

i. Pins

Pins could have been either tools or cloth accessories.

Only a small fragment of a bronze pin has been found in a double male-female MH III burial (MH52-53). The pin fragment was treated as associated find.

Bone and bronze pins have been found quite often at Lerna (12 pins). They were associated with more sub-adults than adult burials.

Sets of objects

In the grave where the bronze pin fragment was found a pair of bronze tweezers was also placed.

ii. Whorls

The use of terracotta whorls is uncertain. They could have been used as spindle whorls, as cloth bottoms or as pin heads.

Five terracotta whorls have been found in five graves.[134] Four of them are treated as proper offerings, while one is referred as associated find, which was found in the vicinity of the grave. This was the only terracotta whorl associated with a sub-adult burial (MH67). The remaining four whorls were found in relation to adult burials,[135] of which two were females, one was male, while the sex of the fourth adult is unknown. Two of them were found close to the knees of the skeletons (MH74, MH98), one was found close to pelvis (MH60) and one close to elbow (MH23). Also at Lerna whorls were usually found in adult burials, more female than male.

Terracotta whorls were probably used as offerings or as clothes accessories throughout the period under study. The two dated examples from Kastraki come from the MH I and the MH III/ LH I periods.

Sets of objects

No correlations between whorls and other objects emerge.

To conclude, pins made of non-perishable materials were not placed in the burials at Kastraki, as only a small fragment has been found. Terracotta whorls on the other hand were placed in adult male and female burials.

[134] None of them was studied. The whorl from grave MH60 is kept at the Asine collection in Uppsala. The remaining whorls were not found in the Museum's storerooms in Nauplion (2006).

[135] In graves MH60 an MH98 also neonate bones were later assigned (Ingvarsson-Sundström 2003). However, the terracotta whorls were found in relation to the adult skeletons.

d. Weapons

An obsidian arrowhead, a bronze razor and a bronze spearhead are the only weapons found in the graves at Kastraki. As already mentioned for the weapons found at Lerna, these objects are better described as simple weapon implements used for hunting rather than for fighting.

Moreover, the razor could have been used as tool as well. The arrowhead and the razor were placed together near the feet of the skeleton (MH107). The bronze spearhead is treated as associated find because it was found near, rather than inside, the grave (MH58). MH107 dates probably to the MH III period and MH58 is post MH I. All three objects were found in adult burials. One of them (MH58) was a MA male, while the second skeleton (MH107) has never been examined.

The two graves were not found in the same area of the settlement. MH58 was placed on Terrace III, in the area of House T, while MH107 was found on the Acropolis. They do not belong to any of the designated groups.

Sets of objects

The obsidian arrowhead and the bronze razor were placed together in the grave.

We see therefore that age differentiation existed in the placement of weapons in burials, as they were only found in adult graves. At Lerna they were primarily found in adult male burials.

e. Miscellaneous objects

No miscellaneous objects have been found in the graves at Kastraki. At Lerna on the other hand, quite a few miscellaneous objects were retrieved (17). The absence of these objects at Kastraki indicates that a more restricted repertoire of offerings was used. The same was observed for pottery shapes.

Let me summarize the observations on non-pottery objects. Only few graves (12.7%) at Kastraki contained non-pottery objects. The repertoire of these objects was restricted, and consisted of tools, whorls and ornaments. Non-pottery objects were mainly found in cist graves, while most of the dated cists and pits containing them were late. Age differentiation has been observed in the distribution of non-pottery objects. They were mainly found in adult burials and only occasionally in single, sub-adult burials. Finally, the spatial distribution of the graves containing them was uneven. They were mostly

found in Terraces II and III and on the Acropolis. Overall therefore, the picture obtained from pottery was confirmed from the non-pottery objects.

f. Organic remains

Bone remains of animals and shells have been systematically collected during the excavations, and they have been reported from three graves. Furthermore, Ingvarsson-Sundström during her study of disarticulated human bones found loose in the soil separated seashells, as well as animal bones (2003, 149). However, this material has not been analysed further and is not included here. It should be stressed, however, that soil samples were not water-sieved. Therefore, there must have been more animal bones and shells and especially carbonised seeds originally.

Let me first start with animal bones and then turn to sea shells.

i. animal bones

Animal bones have been found in six graves[136], while their existence in another one is uncertain (MH62)[137] (Macheridis 2017, 132-133). In the double MH I adult-neonate burial MH98 animal bones of sheep or goat were found together with sherds in the grave fill. In the remaining graves animal bones were found inside the grave. These bones are considered as proper offerings.

Five of these graves date to the early MH period and only one to the later phase. It should be stressed however that only the early (MH I-MH II) animal bones have been systemically examined and analysed (Macheridis 2016a; 2018). The burials of two adults and three sub-adults contained animal bones. The early graves belong to adults-male and female- and sub-adults, while the later grave to a sub-adult. Therefore, no pattern emerges concerning age or gender differentiation.

On the other hand, their spatial distribution is not random. Only one (MH 18) was found in the Large Trench of the Lower Town, while the remaining were found on Terraces III (MH58, MH60, MH66) and II (MH98, MH102) of the Lower Town. However, they do not cluster in the same grave groups.

[136] MH18, MH58, MH60, MH66, MH98, MH102.

[137] Some small animal bones were referred from the double adult-neonate burial MH62. However, these bones may have actually been the neonate bones, which were not identified as such during the excavation (Ingvarsson-Sundström 2003, 48).

If we examine the animal species, the same animals dominating the settlement are most common in the graves. Pigs predominate followed by cattle and goat/sheep (Macheridis 2017, 134-135).

In Lerna animal bones were found in many more graves (23). At this site animal bones were more often found in juvenile-adult burials, while gender differentiation was not observed. Contrary to the animal bones in the Asine graves, the animal bones in the Lerna

graves do not correspond to the general picture provided by the settlement. In the graves, cattle are most common, followed by sheep/goats and pigs. Pigs were the most common animal in the consumption on an everyday basis at both Lerna and Asine. However, it seems each site regarded different animals as most important for ritual use (cattle at Lerna and pig at Asine) (Macheridis 2017, 138).

The grave goods were either meat portions as gifts for the dead or the remains of some funerary meal. In the graves, pig bones were present in higher abundances than expected. Therefore, it has been proposed that the animal was not only of economic and nutritional use; it was also used for symbolic and ritual, purposes (Macheridis 2017, 140).

ii. sea shells

An un-worked sea shell was found once. In particular, a purple shell was deposited close to the skull of a sub-adult individual in a MH III/LH I grave (MH18), where also the fish bones were found. At Lerna sea shells have been found both with adult and sub-adult burials, but sub-adults predominate.

iii. charred grains

No charred grains have been reported from Kastraki. Is should once more emphasised, however, that the soil was not water sieved.

To conclude, we can propose that in Kastraki animals, or animal parts, and shells were not usually considered appropriate as grave goods, as the number of graves containing organic remains is too small. When animal parts were placed in the burials, pigs clearly predominate. Those burials were primarily placed on Terraces II and III. Age and gender differentiation has not been observed.

2.5 KASTRAKI: CONCLUDING DISCUSSION

Having analysed all the existing data on burials and their context let me address again the main question posed in this study: What does the mortuary patterning tell us about the social structure of MH society? In order to give some answers on Kastraki, differentiation between the burials and change through time will be examined.
However, the temporal analysis is seriously hampered by the large number of undated graves, while the many unstudied and now lost skeletons restrict observations on age, gender, diet and pathology. Nevertheless, based on the available information some general patterns have been observed.

In the following sections I will first discuss aspects of age and gender differentiation, I will then move to wealth and elaboration as criteria of possible differentiation and I will close the discussion by examining the significance of kinship. Then, when possible, I will examine change through time in all the above mentioned aspects. Finally, throughout the discussion, emphasis will be given in particular characteristics and developments taking place in Kastraki.

2.5.1 Age differentiation

Age differentiation among the burial assemblage from Kastraki was pronounced and was expressed in various ways. First of all, the overall predominance of sub-adult burials indicates that the settlement context was more appropriate for the burials of this age category. Moreover, differentiation was clearly expressed in the spatial arrangement of the graves and less directly in the grave types used and in the grave finds. Some hints of differentiation were finally found in the mode of disposal of the dead.
Let me first start with the inclusion of different age groups in the cemetery. From the studied skeletons we can conclude that all age categories, except from juveniles, were represented in the burial assemblage.[138] However, sub-adults and especially foetuses and neonates predominate. Change through time in the proportion of adults and sub-adults cannot be studied in Kastraki, as half of the graves are undated.[139] It is interesting

[138] The absence of juveniles taken together with the underrepresentation of children may result from the many unstudied skeletons referred generally as ‘children’ by the excavators.
[139] Based on the dated graves only, it turns out that more adults were buried in the settlement during the MH I-MH II, while almost an equal number of adults and sub-adults were buried in MH III-LH I (?)

however, that the earlier dated graves (EH/MH) belong to adults. It seems therefore that the settlement context was primarily used for sub-adult burials but some adults were also buried there throughout the MH period. The underrepresentation of the adult burials will be later evaluated in comparison with age inclusion in the East Cemetery and in Barbouna.

At Kastraki age differentiation was clearly expressed in the spatial arrangement of the burials. For example, only occasionally were sub-adults (3sub-adults, 9 adults) buried in the Acropolis and in Terrace II, which is located at the edges of the settlement, close to the Acropolis. On the contrary, mainly sub-adults were buried lower in the hill, in Terrace III and in the area of the Large Trench. We see therefore that differentiation existed between the centre of the settlement, where primarily sub-adults were buried, and the periphery of the settlement, where primarily adult burials were placed. This differentiation was present at Kastraki already from the MH I period.

Moreover, the groups of burials found in the Lower Town were differentiated primarily on the basis of age. Thus, even if some adults were buried in the central area of the settlement, their graves were separated from the sub-adult graves. To give some examples, only sub-adults were found in burial groups 2, 9 and 11, while sub-adults clearly predominate in groups 5, 7, 8, 10, 12 and 13. On the contrary, only adults were found in group 15, while they predominate in groups 1, 6 and 14 (Chart 126).

Furthermore, age differentiation was observed between the different areas or rooms of a house. For instance, sub-adult graves were opened in the area of Room XIX, House D**,** group 2, while the only adult grave associated to the house was opened in the area of Room XV. In House A, only sub-adult burials took place in the area of Room II, group 7, while in Room I and to the east of the house, group 6, adult burials have been found.

Although the spatial analysis of Kastraki is not without problems, because of the continuous occupation of the site in later periods which caused disturbances and obscures the spatial patterns, it is clear from the available data that the mortuary patterning was to a great extent related to age.[140] In Lerna spatial differentiation between age groups was not as apparent as in Kastraki. The graves formed clusters, but

period (Ingvarsson-Sundström et al. 2013, 153-155). However, this picture is distorted due to many undated, unfurnished, mainly sub-adult burials.

[140] Ingvarsson-Sundström (2008, 106) believes that we cannot obtain any reliable pattern for age distribution among the houses of the Lower Town, because of those disturbances. Nevertheless, she proposes that the placement of a grave may have been significant.

these clusters contained all age groups. Only during the later part of the settlement occupation was an area preserved for sub-adult burials only (see chapter 1.2.4b).
Differentiation between adults and sub-adults can also be seen in the choice of grave types and furnishings, though clear-cut divisions are missing. For instance, burial jars were exclusively used for sub-adult individuals from the MH I until the MH III period. It should be stressed however, that not all sub-adults were buried in jars. Moreover, evidence for the existence of wooden coffins has only been found in foetus and neonate pit graves. Obviously not all burials of this age were interred in coffins.
On the other hand, the early stone-lined pits were strongly related to adults, as the only sub-adult found in a grave of this type was buried together with an adult.[141] Moreover, mainly adults, and a neonate buried together with an adult, were buried in stone-built cists. In general, adults predominate in cists, while neonates are the less frequent age category found in them. At the same time, the adult pits date mainly from the early phases of the MH period.
Moreover, age differentiation was observed not only in the grave types used but also in the grave furnishings. Thus, floors and covers have more often been found in adult than in sub-adult pits. In the cist graves covers have more often been associated with sub-adult cists, while floors were found in more adult graves. The same association between adult burials and grave floors and between sub-adult burials and grave covers has been observed in Lerna. In all the above mentioned examples, however, we are dealing with tendencies rather than clear patterns.

Let me now turn to grave finds and examine their correlation with age groups. In general, pottery and non-pottery finds have been found in few graves in Kastraki. Pottery was more often deposited in adult burials throughout the period. Vessels were first deposited in single sub-adult burials during the MH III period. During the MH I-MH II pottery was only placed in graves where at least one adult was buried.
Non-pottery objects have also been mainly found in adult burials or in burials where adults and neonates were buried together. Only occasionally were non-pottery objects found in neonate-infant burials. More specifically, weapons have only been found in adult burials and the same holds true for ornaments. Tools and terracotta whorls were

[141] However, some caution is necessary as we are dealing with only three graves.

only exceptionally placed in a sub-adult burial. Moreover, bronze objects have only been found in adult graves.

We see therefore that most offerings have been found with adult burials. As it has already been noted by Ingvarsson-Sundström (2008, 122), no children-specific objects existed. The same researcher (2008, 110) proposes that references to certain types of work carried out by children were sometimes indicated in the grave e.g. the bone awl found at a 5-6 years old infant grave (MH63). However, in my mind it is too risky to come to this conclusion based on a single object.

Concerning burial treatment, relative homogeneity has been observed across all age categories. All burials were inhumations and adults and sub-adults have been found in single and double burials. Typical secondary burials were exceptional and concerned adult skeletons. Some hints of age differentiation were observed in body position as only adults were found in prone position and few sub-adults were buried with upper body on back. If we turn to body orientation, only sub-adults have been found with their head towards E, but the numbers are small.

Finally, we cannot compare diet and health status between adults and sub-adults from Kastraki, as paleopathological analysis, mechanical load markers analysis, stable isotopes analysis or dental microwear analysis have not been carried out.

To conclude, age was a very important criterion of differentiation and an important principle structuring social life in MH Kastraki. Many of the distinctions observed in the burial record were between adults and sub-adults. Moreover, foetuses and neonates were probably treated differently, as is indicated by the evidence for the existence of wooden coffins in some of their graves. Although at Kastraki age seems to have played a more important role that in Lerna or even in Aspis, it was here also mediated by other aspects of the identity of the deceased, as most of the times clear dichotomies are missing. This brings us to gender.

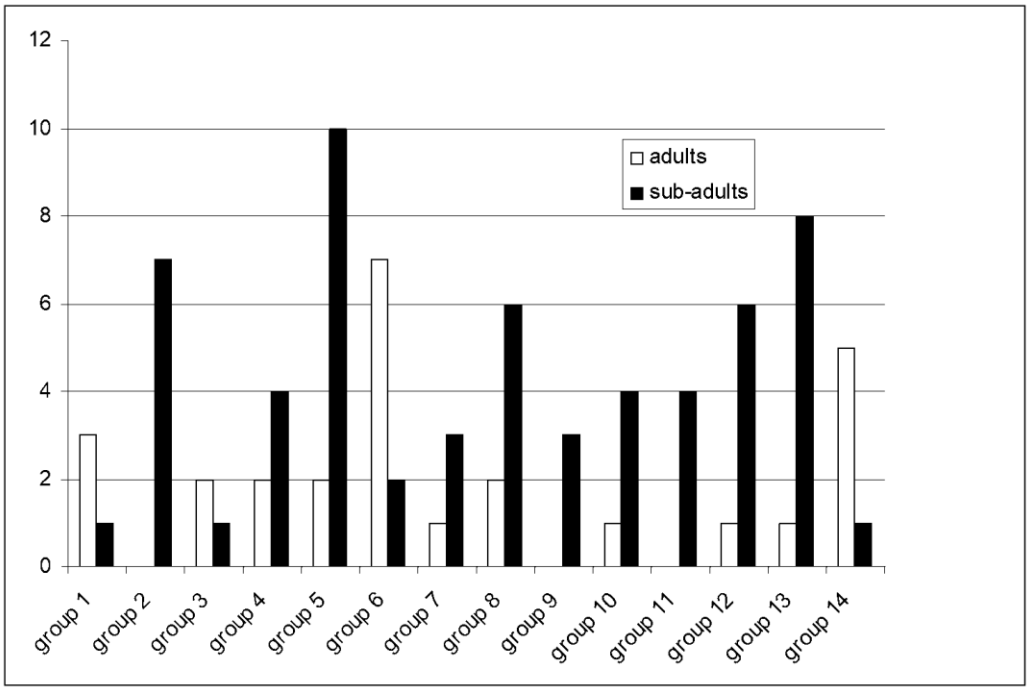

Chart 126: age inclusion in the burial groups

2.5.2 Gender differentiation

The study of gender differentiation was seriously hampered by the large number of un-sexed adult skeletons. Nevertheless, from the sexed skeletons (23) we can conclude that no pronounced differentiation between men and women was expressed in the burial practices. Some hints of differentiation can be detected in the grave types used, in the orientation of the body and in diet.

Overall, both men (14) and women (9) were buried in the settlement. The slight predominance of males may be misleading because of the many un-sexed skeletons. On the basis of the dated graves we can say that both sexes were buried in the settlement already from the early phases of the MH period, but finer observations on change through time are impossible due to small sample size.

Based on the few sexed skeletons, some differentiation was observed in the grave types used for men and women. Thus, mainly men have been buried in pits, while women were more frequently buried in cists.

Gender differentiation has not been observed in grave finds. The number of sexed skeletons accompanied by pottery or non-pottery offerings is too small to allow further analysis.

On the other hand, some hints of gender differences were found on body position. For instance, more females have been found buried with their head towards the N, which is

the lower part of the hill, while more males were buried with their head towards the S, which is the upper part of the hill. Moreover, more men were found lying on their left side (8) than on their right (1). This preference runs counter to the one observed in Lerna, where men were usually placed on their right side. Once more, however, we are dealing with tendencies. Overall homogeneity has been observed in the mode of disposal between males and females.

Finally, according to Ingvarsson-Sundström, the signs of malnutrition on adult female skeletons indicate that the food was not equally distributed between the sexes. She finds it possible that the presumed difference in diet began immediately after birth with selective breast-feeding practice and earlier weaning of female infants (Ingvarsson-Sundström 2008, 97).

To conclude, some hints of gender differentiation have been observed but in all cases we are dealing with stronger or weaker tendencies than with clear-cut divisions. Based on a small sample size, it seems that gender was not an important criterion of organization, at least as revealed from the burials. In Lerna some subtle gender differentiation existed already in MH I–II and became slightly more emphasised during the MH III-LH I period.

The role of personal status and "wealth", in order to understand if these dimensions were or were not expressed in the elaboration of the graves, will be examined next.

2.5.3 Elaboration, 'wealth', status

Grave elaboration is an important aspect of the mortuary treatment and a useful tool when analysing differentiation. In Kastraki, however, such an analysis is difficult, as elaborate graves are absent. Nevertheless, an attempt will be made to detect possible status differentiation between individuals and between groups, based on grave construction, on the few grave offerings, on mortuary treatment and on the location of the graves. As we will see, differentiation between individuals and groups in terms of 'wealth' was minimal in Kastraki, at least in the mortuary sphere. It became slightly more emphasized during the late phases.

i. differentiation between individuals

In general, throughout the period no emphasized wealth differences between individuals existed.

If we first examine grave types differentiation was minimal. Only a couple of sub-adults were buried in burial jars (6) or in wooden coffins (4). The rest of the population was buried in pits and cists of moderate size and construction. Elaborate grave types, such as large cists and shaft graves, have not been found.

However, some relatively richer graves, in terms of grave offerings, existed. By 'rich' graves here we mean graves that contain more than two vessels or bronze objects or a combination of the two. Silver and gold objects are missing from the graves at Kastraki. Moreover, no grave contained a large number of vases together with metal objects or any other exotic material.

During the early MH phases only one grave could be characterized as 'rich'. This was a MH I adult burial (MH98), where a flask, two bronze rings, a bone awl, a terracotta whorl and animal bones were found. The grave was a stone-lined pit placed in Terrace II of the Lower Town.

During the MH III and the transitional MH III/LH I period more adult burials (MH4, MH52-53, MH58, MH107) but also a sub-adult burial (MH18) were relatively 'rich'.[142] These were pits and cists of different types, where pottery and/or bronze objects were found. There is therefore no correlation between grave type, grave construction and quantity or diversity of the offerings.

If we turn to their location, three of these graves (MH4, MH18, MH58) were placed at some distance from other graves and do not belong to any of the designated groups. We could propose that their relative isolation may have been a way to emphasize their difference.

Finally, if we turn to burial treatment a couple of double (5) and a multiple burial existed. However, neither the grave type - they were pits and cists of different types - nor the number of offerings –only one double burial contained offerings- indicate higher status of the deceased.

To conclude, during the early phases inside the settlement differentiation between individual burials in terms of grave elaboration and mortuary treatment is minimal and does not reflect social status differences in terms of wealth. It seems that during that time differentiation was mostly based on age, while the importance of kinship will be

[142] MH52-53, MH III, semi-cist, double adult male-female: bowl (?), bronze tweezers, fragment of bronze pin; MH58, pit, MH III, adult male: bronze spearhead; MH107, pit, MH III, adult: 2 cups, bronze razor, obsidian arrowhead; MH4, mixed type cist, MH III/LH I, adult: jug, 2 bronze beads; MH18, cist with vertical placed stone slabs, MH III/LH I, sub-adult: 4 vessels, shell, fish bones.

examined later. This picture is confirmed by the settlement data, where no differences between the houses in terms of size, construction and content can be observed (Nordquist 1987, 90; Voutsaki 2010; Ingvarsson-Sundström et al. 2013, 154; Wiersma 2013, 121-123).

During the later phases a subtle differentiation is observed in terms of grave offerings and grave location. Although this differentiation was minimal, it can be proposed that the notion of personal status differences is now emerging. However, in Kastraki it was always less emphasized than in other sites. In part, this may be due to the small number of MH III/LH I graves and the absence of LH I graves in this part of the settlement. In this period, the settlement data indicate clearer differentiation between the houses as well. Some of them are larger, had a more complex plan and slightly more imported pottery was found in them. However, none of the larger houses contained more 'valuables' (Nordquist 1987, 90; Voutsaki 2010, 774; Ingvarsson-Sundström et al. 2013, 157; Wiersma 2013, 124-128).

In Lerna the subtle individual differentiation of the early MH phases became more pronounced during the later phases.

ii. differentiation between groups

While differentiation between individual burials is minimal in Kastraki throughout the period, there is some differentiation between grave groups, already from the early phases. For instance, half of the burial jars (3) were found in grave group 2, associated with House D, Room XIX, in the Large Trench. If we turn to pit graves their distribution was uneven. Thus, only pit graves have been found in grave groups 1, 3, 7 and 12, while a single pit has been found in group 4. On the other hand, pits are totally missing from group 15. Moreover, the three earlier stone-lined pits were found close together in group 1. Actually, three of the four pits of this group were stone-lined (Fig. 122, 123).

Furthermore, three of the four pits where traces of wooden boxes were found, belong to group 12, Terrace III, while more wooden boxes probably existed in Terrace III (Ingvarsson-Sundström, 2008, 105) (Fig. 123). Ingvarsson-Sundström (2008, 105, 121) believes that wooden coffins may have been used by a wealthier group, to indicate special status for their foetuses and neonates. Although the group where most of the traces of wooden boxes were found shows similar practices –only pit graves were used, almost exclusively neonates were buried and many double burials existed- no wealth differences between this group and the rest exist.

Differentiation between the grave groups was also noted in the distribution of cists (Fig. 122, 123, 124). Thus, only cist graves were found in group 15, while cists are totally missing from groups 1, 2, 3, 7, 9 and 12. Moreover, some subtle differentiation between the groups in the cist types used has also been observed. For example, some of the mixed type cists cluster together in group 4, where three of the five graves belong to this type. Moreover, all the cists found in groups 8, 10 and 13 of Terrace III were made with vertical placed stone slabs. However, the extent to which these differences have a chronological component is difficult to ascertain due to many undated graves.

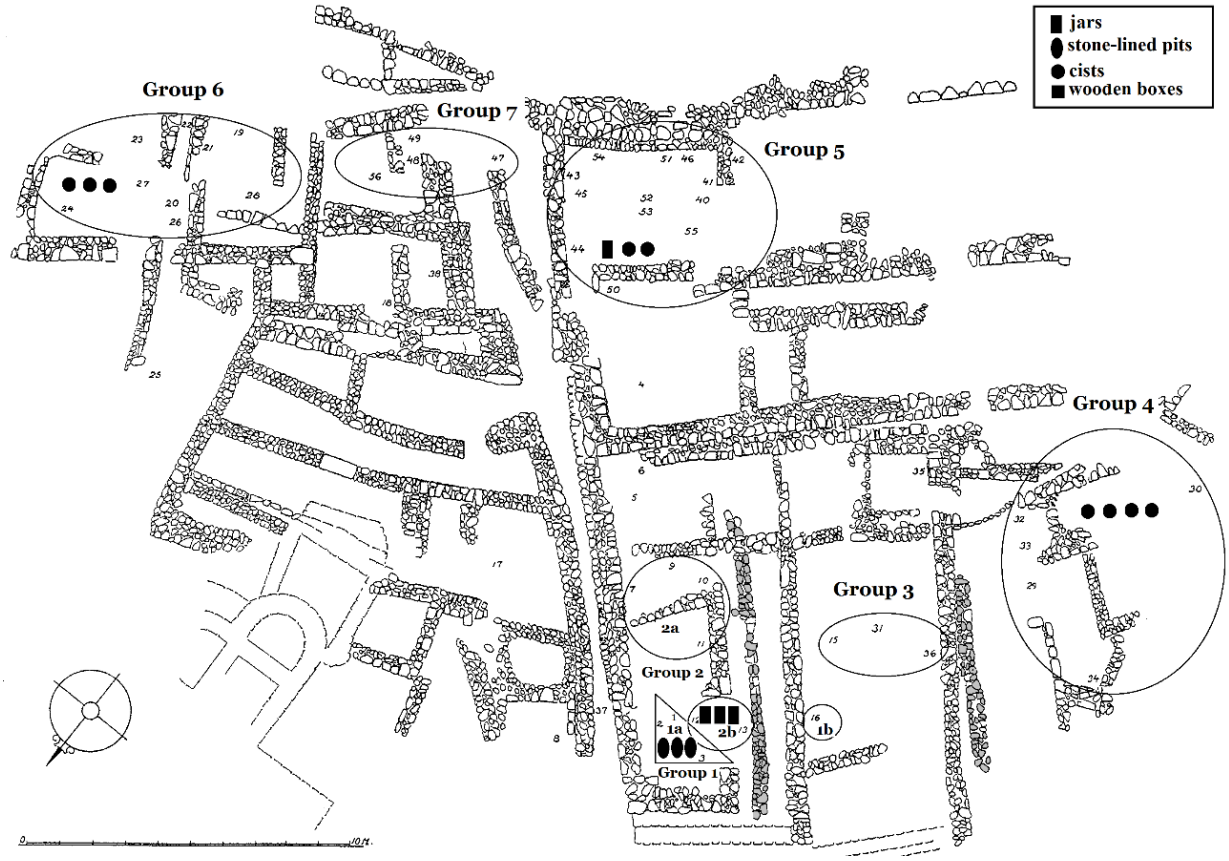

Fig. 122: Distribution of different grave types in the Large Trench of the Lower Town (after Frödin & Persson 1938, fig. 42).

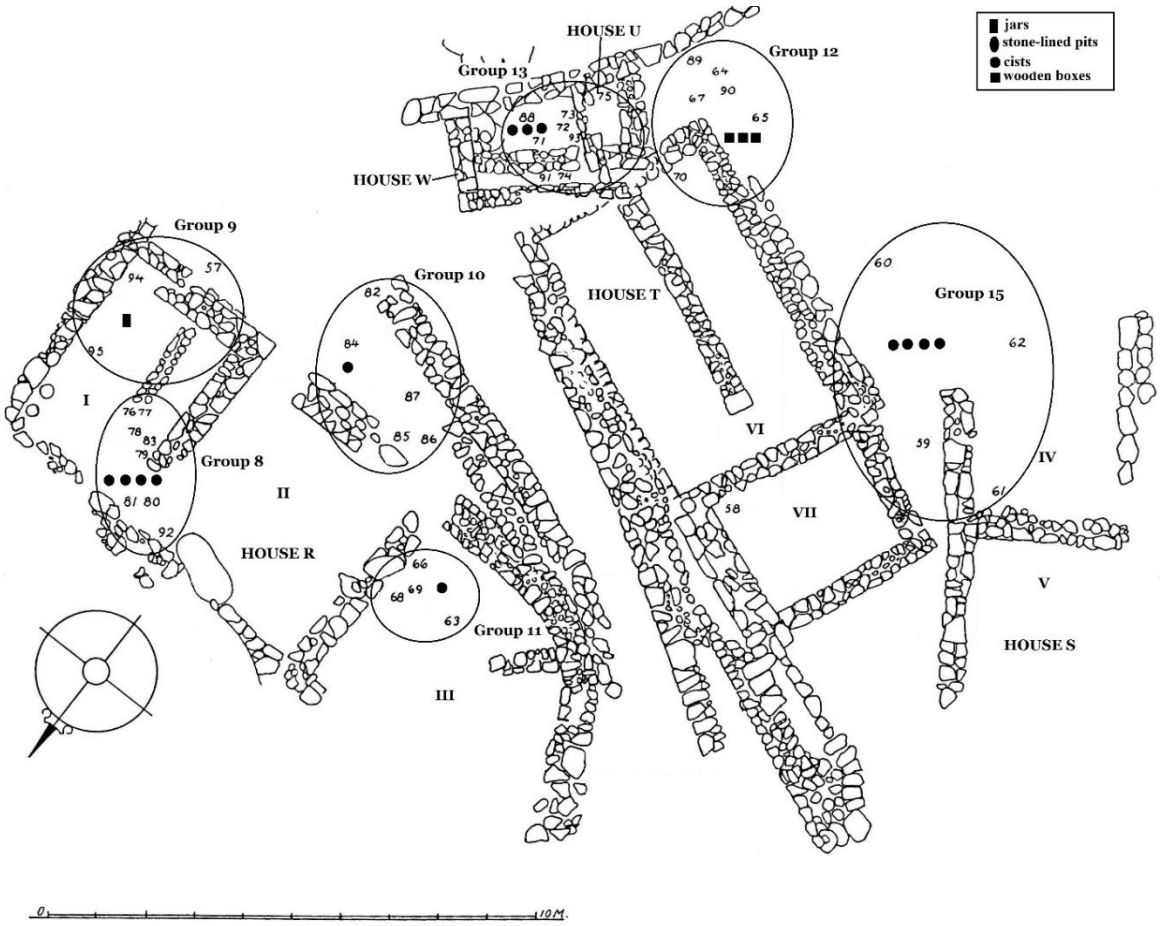

Fig. 123: Distribution of different grave types in Terrace III (after Frödin & Persson 1938, fig. 68).

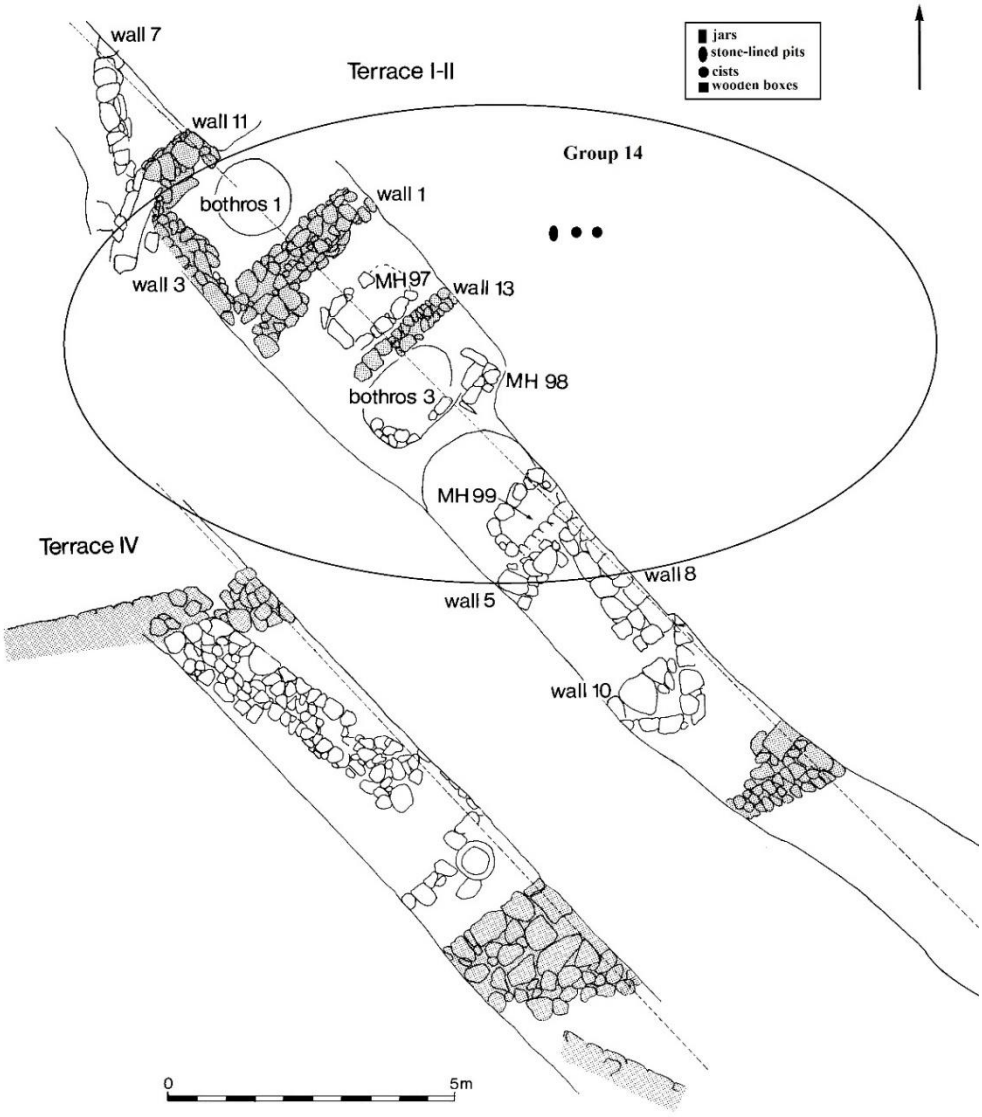

Fig. 124: Distribution of different grave types in Terrace II (after Nordquist 1987, fig. 68).

If we now turn to pottery and compare its distribution into different grave groups, some differences can be noticed. For example, most of the graves containing pottery were found in groups 3, 4, 5 and 6, all situated at the Large Trench of the LT, and related with different houses (Fig. 125, 126, 127).[143] On the other hand, the few imported vessels did not cluster in one group; actually they were found in graves that do not belong to any of the designated groups.

Differentiation was also noted in the distribution of offerings other than pottery (Fig. 125, 126, 127). Thus, most of the graves containing non-pottery finds belong to groups

[143] Groups 3 and 4-House D; Group 5-House E; Group 6-Houses A and C.

13, 14 and 15, at Terraces III and II of the LT and on the Acropolis.[144] We see therefore that differentiation is observed not only between grave groups but also between the centre and the periphery of settlement.

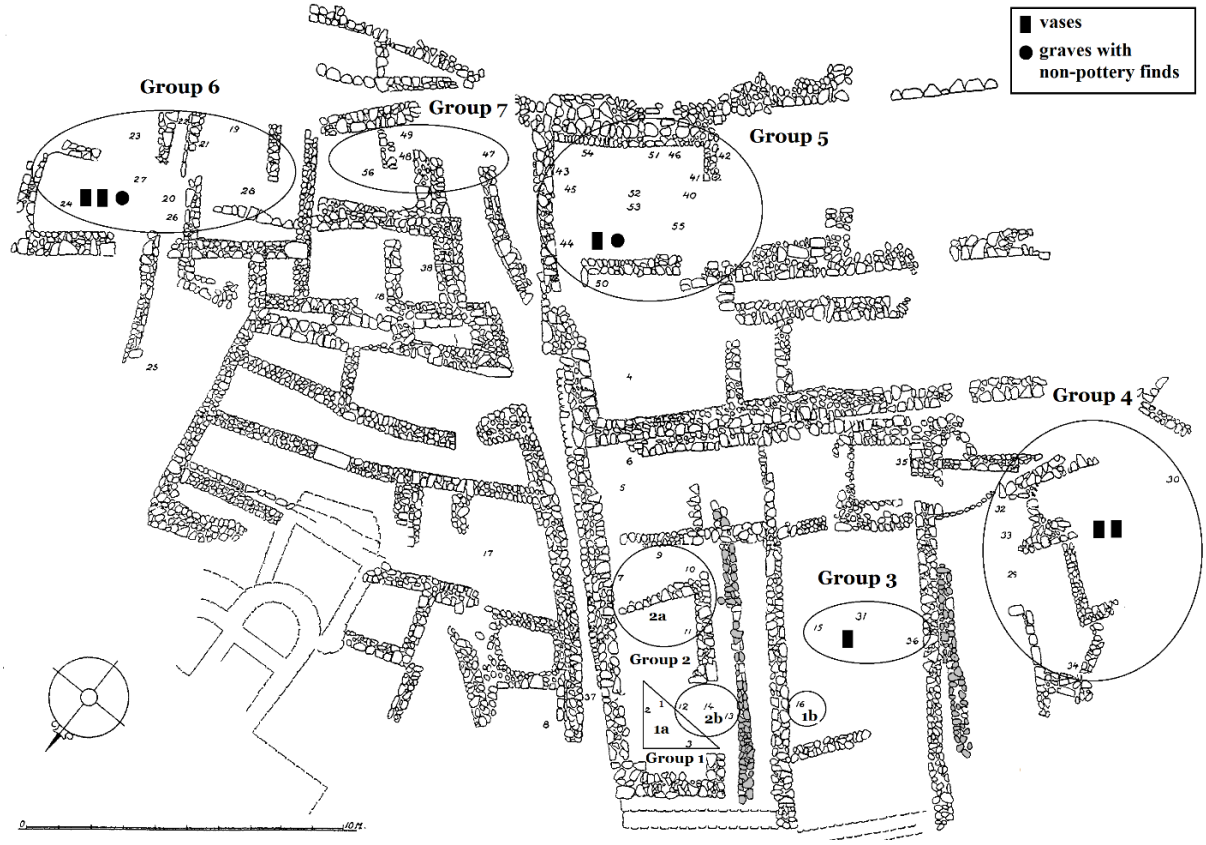

Fig. 125: The distribution of offerings across the different grave groups in the Large Trench of the Lower Town (after Frödin & Persson 1938, fig. 42).

[144] Group 13- House or Room U; Group 14- Rooms 1 and 2; Group 15- Houses S and T.

FF

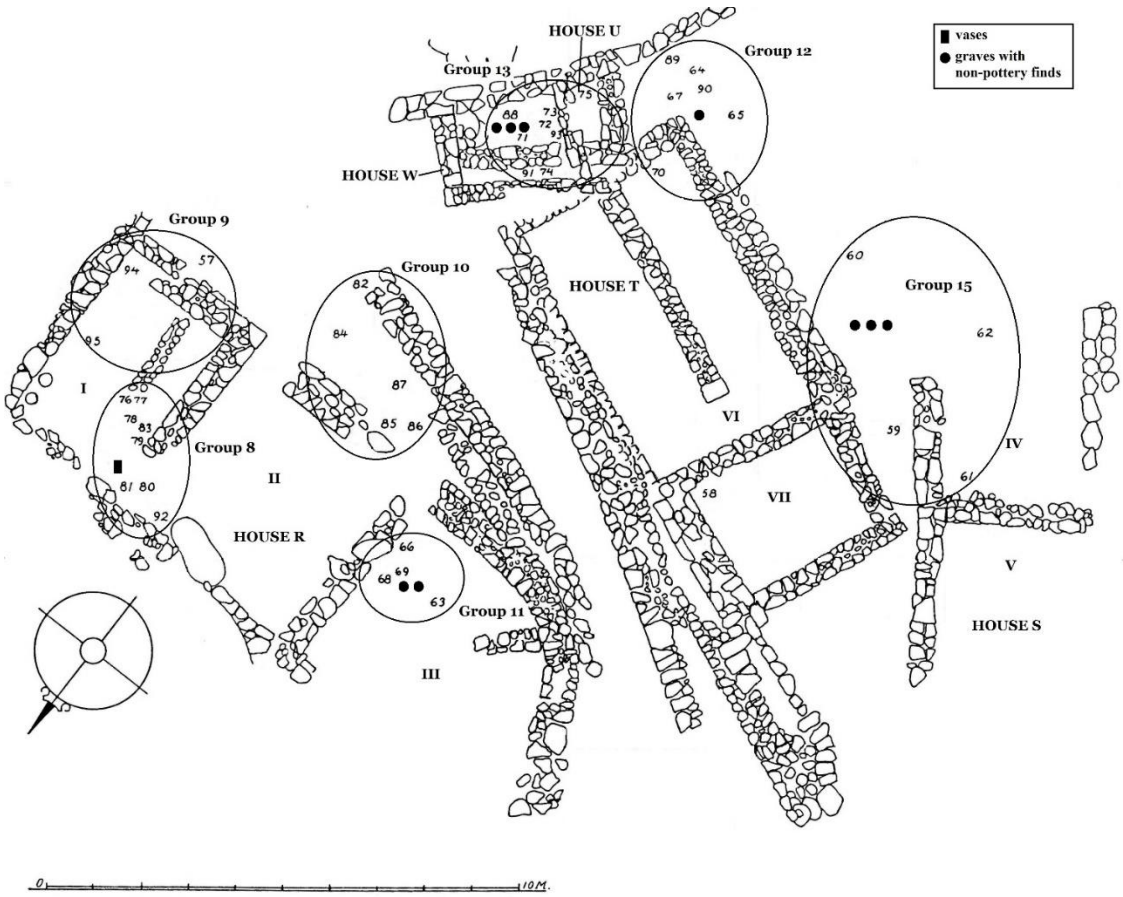

Fig. 126: The distribution of offerings across the different grave groups in Terrace III (after Frödin & Persson 1938, fig. 68).

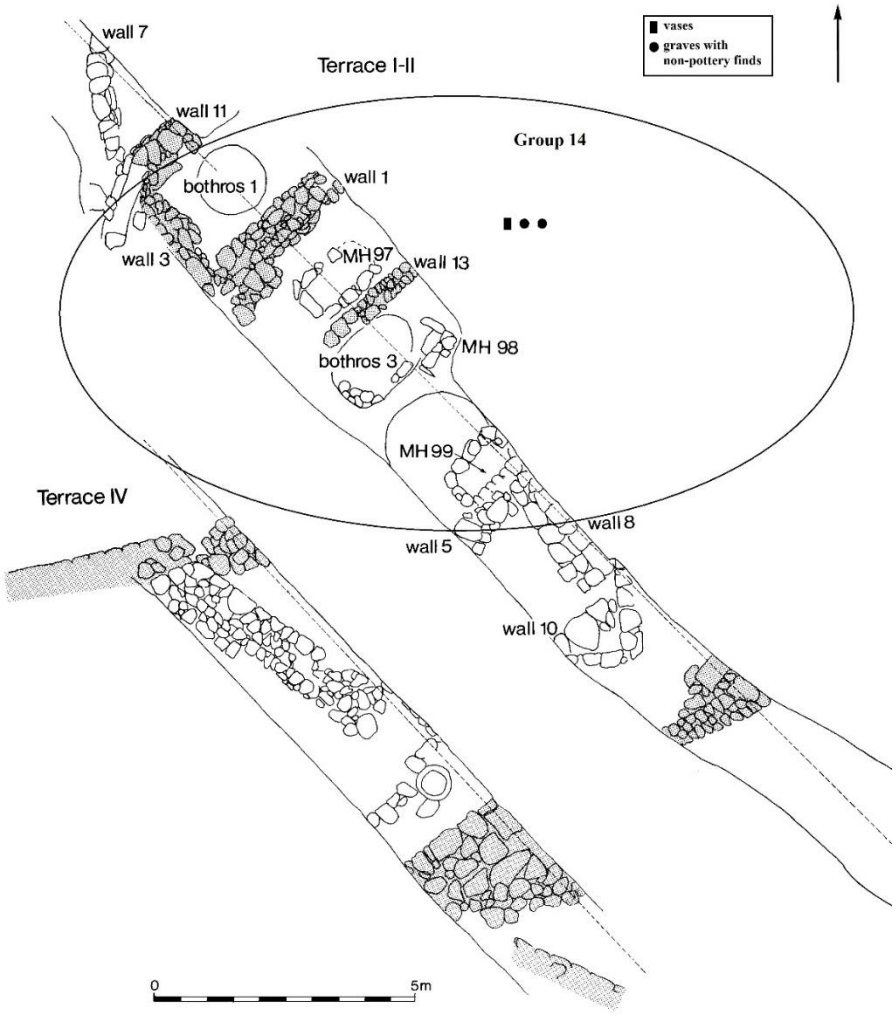

Fig. 127: The distribution of offerings across the different grave groups in Terrace II (after Nordquist 1987, fig. 68).

Finally, some hints of differentiation were found in the mode of disposal of the dead (Fig. 128, 129, 130). Most of the double/multiple burials, for example, were found in the adjacent grave groups 12, 13 and 15, all in Terrace III. Moreover, most (3 of 5) of skeletons in prone position were found in Terrace II. Two of them belong to grave group 14.

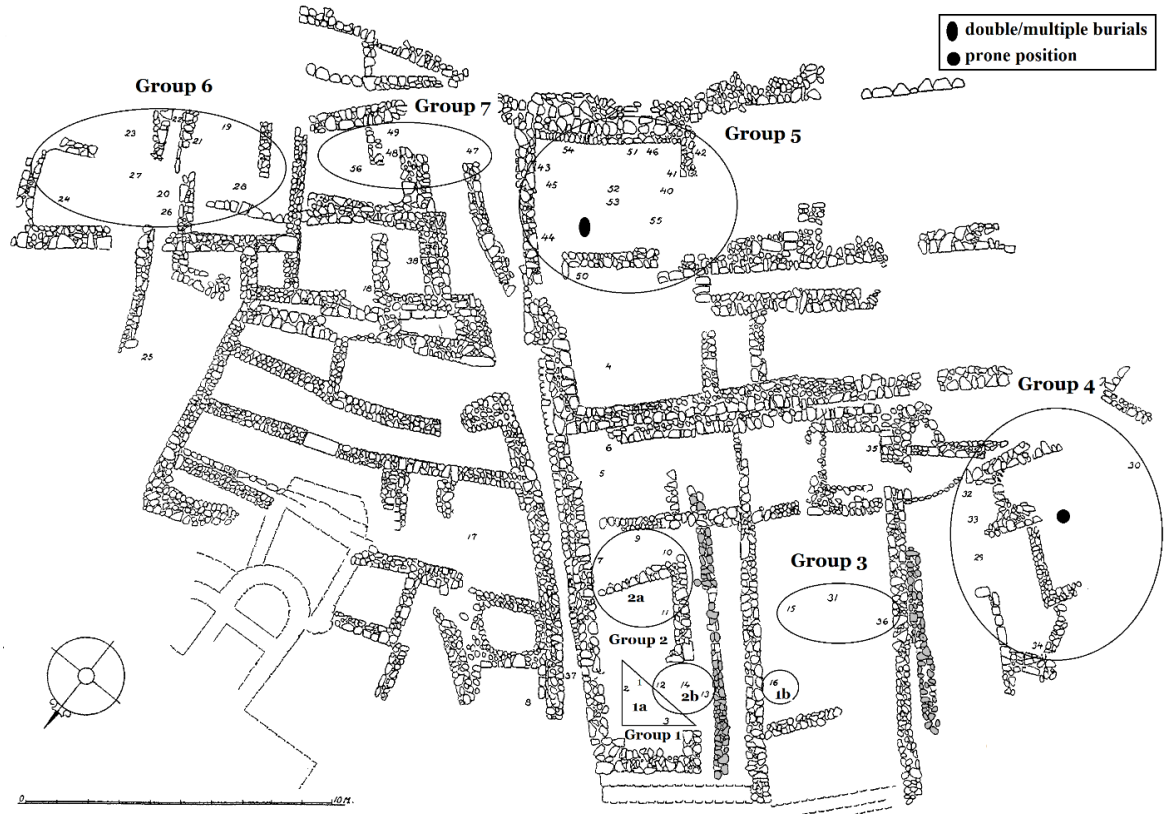

Fig. 128: Mortuary treatment in the different grave groups in the Large Trench of the Lower Town (after Frödin & Persson 1938, fig. 42).

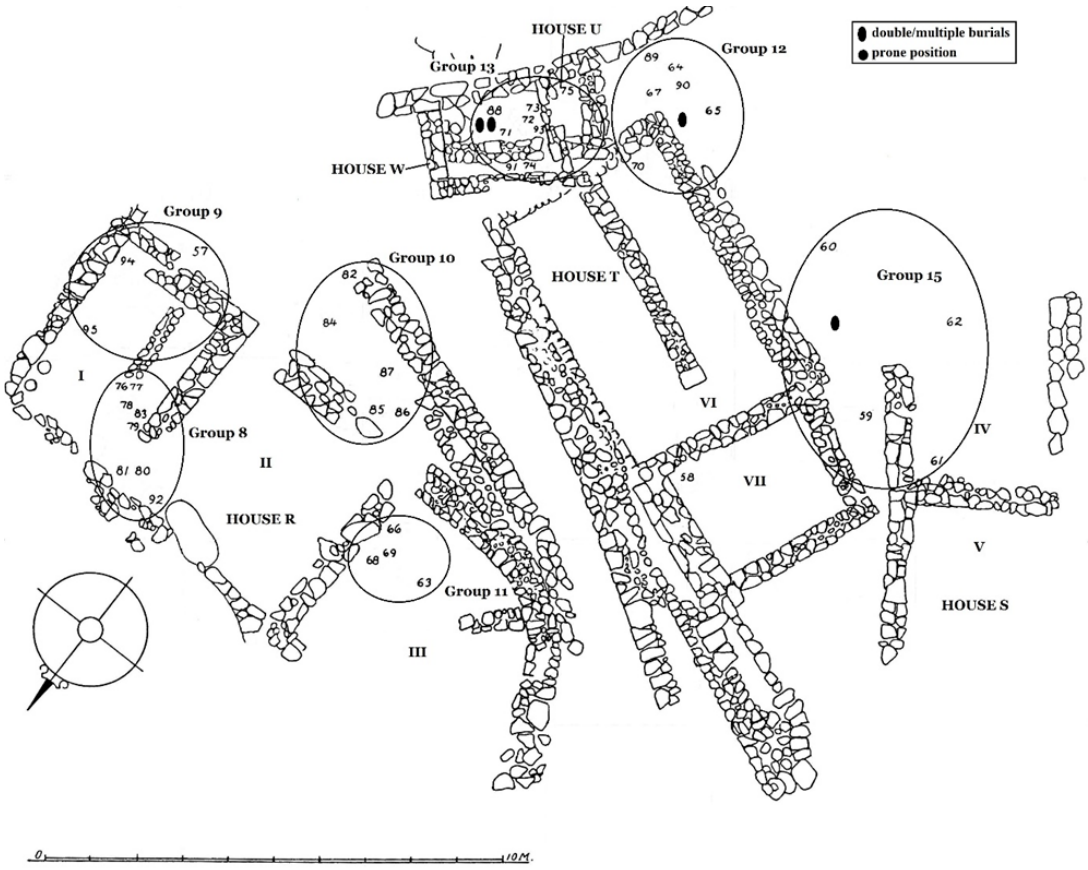

Fig. 129: Mortuary treatment in the different grave groups in Terrace III (after Frödin & Persson 1938, fig. 68).

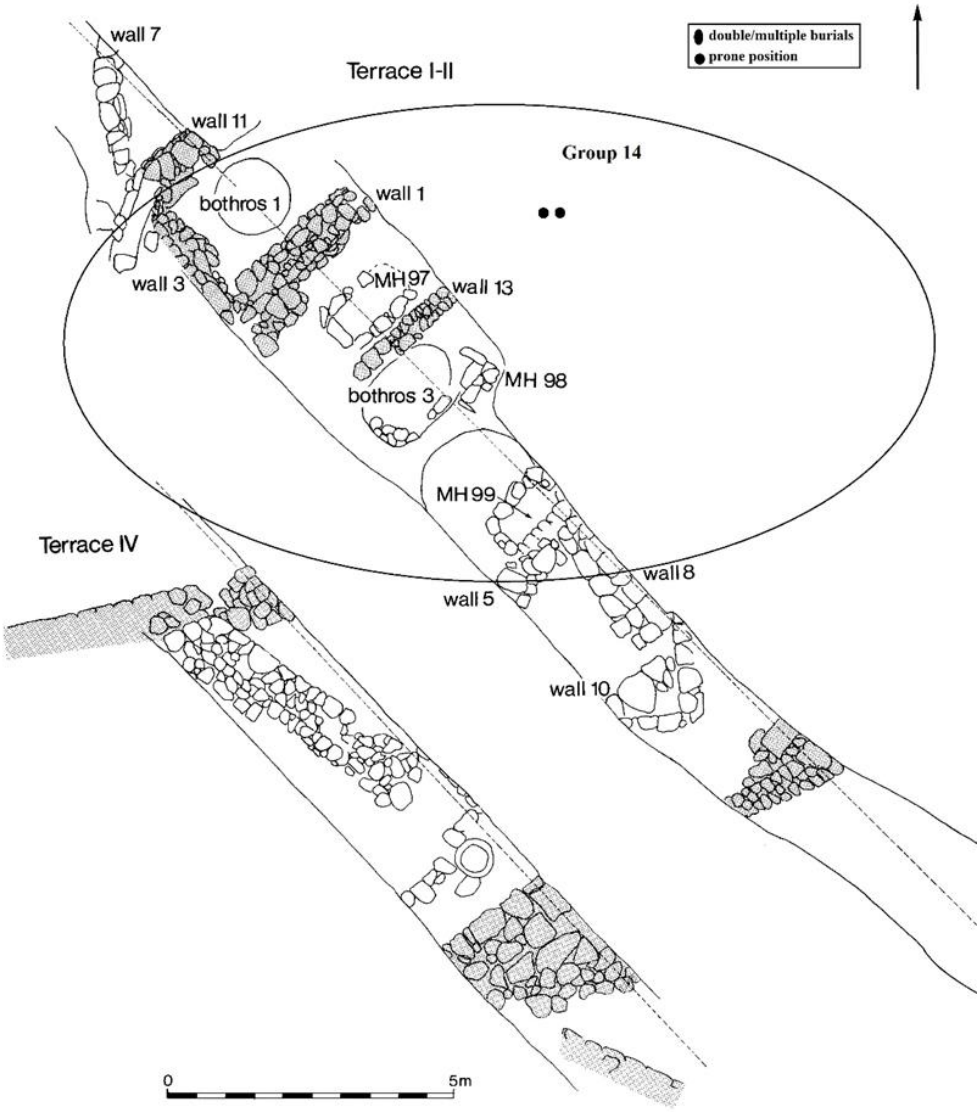

Fig. 130: Mortuary treatment in the different grave groups in Terrace II (after Nordquist 1987, fig. 68).

To conclude, some differentiation between grave groups existed but it was not pronounced and, more importantly, it was not translated into wealth differences. Moreover, in contrast to Lerna, in Kastraki different layers of differentiation were not usually concentrated in one or two groups. Rather each group, or better adjacent groups in a larger area, adopted similar practices to demarcate themselves from the rest. The need for group demarcation taken together with the subtle differentiation between individuals raises the question for the importance of kinship.

2.5.4 Kinship and descent

In Kastraki practices are generally speaking more homogeneous than in Lerna – so, the similarities between grave groups are more pronounced.

Although kin relations and common descent are usually important structuring principles in small scale communities, we have seen that the way they were expressed in mortuary patterning differs from site to site. In Lerna their importance is indicated by the clustering of the graves, the demographic composition and the shared practices within each group, the persistence of the clusters in space and through time and their close relation to successive freestanding houses. In Aspis, as we will see later, kinship and common descent were less emphasised. The grave groups were primarily age based, do not relate to specific houses and do not persist through time. In Kastraki a different pattern is observed; the graves form clusters related to free-standing houses, differentiation between them is less pronounced and they are primarily age-based. Let me examine each aspect in detail.

If we start with the positioning of graves, most of them in Kastraki were located close together and clustered around free-standing houses, or more often above their ruins. The temporal persistence of these groups is most of the times difficult to ascertain, because of the many undated graves. Nevertheless, on the basis of the dated graves we can suggest that the groups were relatively short lived, as most of their graves date from the same period. Their spatial determination in relation with contemporary or earlier houses, on the other hand, is usually clear. Most of the graves are related to a particular house.

The demographic composition of the grave groups, however, does not give direct support to the kinship hypothesis, as most of them were age-based. However, it does not exclude it either as individuals belonging to the same general age category (adults versus sub-adults) may also have been kin-related. It seems that nuclear family relations were less emphasised. However, in a couple of groups (e.g. groups 4, 6, 8) adults and sub-adults were present. It can thus be proposed that some groups emphasized their family ties more, while in others more general affiliations, probably kin-related, were expressed.

Overall**,** the grave groups exhibit similar practices. However, some variation from prevailing practices is sometimes observed, which points to coherence of and continuity within certain groups, probably resulting from kin relations and common descent (for example, most of the jar burials were found in group 2, while only simple pits were

used in groups 3, 7 and 12. On the contrary, only cists were found in group 15 (Fig. 122, 123).

If we turn to offerings, not all groups contained graves with pottery. Moreover, half of the graves containing pottery were found in groups situated at the Large Trench of the Lower Town (groups 3, 4, 5, 6) (Table 118) (Fig. 125). In contrast with graves containing pottery, graves containing non-pottery finds belonged mainly to burial groups situated at Terraces II and III of the Lower Town (Table 119) (Fig.126, 127).

Group	**Area**	**No of graves**	**No of graves with pottery**
3	LT, Large Trench	3	1 (MH31)
4	LT, Large Trench	3	2 (MH32, MH34)
5	LT, Large Trench	12	1 (MH52-53)
6	LT, Large Trench	9	2 (MH20, MH21)
8	LT, Terrace III	8	1 (MH80)
14	LT, Terrace II	5	1 (MH98)

Table 118: distribution of graves containing pottery into different grave groups

Group	**Area**	**No of graves**	**No of graves with non-pottery finds**
5	LT, Large trench, West	12	1 (MH52-53)
6	LT, Large trench, East	9	1 (MH23)
11	LT, Terrace III	4	1 (MH63)
12	LT, Terrace III	6	1 (MH67)
13	LT, Terrace III	8	2 (MH72, MH74)
14	LT, Terrace II	5	2 (MH97, MH98)
15	LT, Terrace III	4	3 (MH59, MH60, MH62)

Table 119: distribution of graves containing non-pottery finds into different grave groups

Finally, some grave groups show similarities in terms of burial treatment. As discussed above, most of the evidence for the use of wooden boxes for neonate burials cluster together and the same holds true for skeletons in prone position (Fig. 123, 130). Moreover, many double-multiple burials were found in the same area of Terrace III (Fig. 129). It seems therefore that a common practice was followed in this part of the settlement. Interestingly however, in contrast with Lerna, exceptional practices do not cluster in the same grave group or groups.

We see therefore that the grave groups at Kastraki, although primarily age-based, share some practices and in some respects differ from each other. It can thus be proposed that the individuals buried in them were kin-related. Their coherence, however, was not as emphasised as in Lerna.

Having examined grave clustering and shared practices inside the grave groups as evidence of possible kin affiliations, let me now turn to their relation to houses. The strongest evidence supporting the importance of kinship and common descent is the spatial clustering of graves around and above free-standing houses (Nordquist and Ingvarsson-Sundström, 2005, 161). In Kastraki throughout the period burials were usually placed upon abandoned houses, in areas that were left free from habitation (Georgousopoulou 2004, 207-213). In contrast to Lerna, those areas were usually not overbuilt by new houses. Such a practice indicates that although the burials took place inside the settlement, the place of the dead and the place of the living were to some extent separated. The strong spatial connection between graves and abandoned houses may have had practical and/or symbolic significance (Sarri 2016, 132-133). Proximity and a notion of protection, especially for sub-adult individuals, may have played an important role. Moreover, it could be suggested that in the ideology of MH Asine 'dead' houses were proper places for dead people, or at least for some of them.

For our argument, what is important is that the placing of graves above disused houses creates a special link between those who once occupied the house and those who buried their dead among their ruins. However, the age composition of the groups implies that it was probably the members of more than one household that tried to connect themselves with the abandoned house and the previous generations. Interestingly, evidence from house architecture suggest that households may have shared the largest houses and may even have pooled their agricultural surpluses (Nordquist 1987, 82; Voutsaki 2010, 773-776). It can thus be suggested that beyond the obvious age-based clustering wider kin-based affiliations were expressed in the mortuary patterning. The

children buried in the same cluster may have been related, so kin may also have been a criterion when positioning graves.

On the other hand, some burials were placed at the courtyards of houses still in use, while fewer were placed inside them. It has been suggested that those burials served 'the returning of the soul in new bodily shape' (Nordquist 1990, 40). For our argument however, what is more significant is that in those cases a more direct connection between the dead and the living members of the same family is expressed.

Whether placed inside houses, in courtyards or above disused houses in the centre or in the periphery of the settlement, burials at Kastraki were part of the everyday life and must have been remembered for some time after the funeral. In this way they reinforced common descent at the family or the community level. A series of practices are usually used as evidence that the dead were not simply disposed of and forgotten once laid in their graves.

At Kastraki even if grave markers have not been found, the possibility cannot be excluded that markers made of perishable materials existed. It can also be suggested that the burial place was marked by the ruins of the houses, which possibly formed a small mound. Moreover, the orientation of the graves sometimes follows that of houses, which may strengthen the memory argument. Although it is difficult to claim that the graves were only remembered by members of their own kin-group or family, the recurrent practices inside the grave groups argues in favor of this hypothesis. On the other hand, the practice of re-opening a grave for a new burial, which is a strong evidence for family relations, has not been attested in Kastraki (though it is not common inside settlements).

Finally, the broken pottery found sometimes in the graves, especially during the early phases, may have been used for the creation of a link between the dead and the living. Although the vessels may have been placed already broken in the grave, the possibility cannot be excluded that they were broken during the funeral and some parts were kept from the living. If this was the case, a very tangible link was created. However, this still remains a hypothesis as we are dealing with only a few cases.

To conclude, in Kastraki the importance of kinship was manifested by the existence of burial groups in close relation to free-standing houses and the shared features within them. Furthermore, the clustering of age-based burials emphasizes the significance of age, but does not exclude the significance of family ties and descent. However, the fact

that houses and graves do not alternate in the same location express a lack of concern with the transmission of property within the family.[145] In contrast with Lerna, the emphasis in Kastraki seems to have been placed less on descent and continuity within the family and more on social memory, i.e. memory of the community as a whole, or at least of wider kin groups.

2.5.5 Change through time

The study of change through time in Kastraki is seriously hampered by the large number of undated graves. As a result, most of the times only tentative conclusions can be reached. Nevertheless, an attempt will be made to come to some conclusions concerning change through time in the spatial arrangement of the graves, in the grave types and offerings and in the mode of disposal of the dead.

i. Spatial arrangement of the graves

The settlement was used as burial place already from the transitional EH/MH period. These early graves (3) belonged to adults and were placed in an uninhabited area of the Lower Town. They were later overbuilt by an early MH II house. However, more undated graves may belong to this early period.

From MH I onwards the burial use of the settlement became more intense. Actually, during the MH I period the settlement was most probably the only burial place at Asine. From MH II more burial places came into use, as we will see later.

In Kastraki adults and sub-adults were buried in different contexts. In Terrace II the adult MH I-II graves were placed in an uninhabited area, at the outskirts of the settlement and were later overbuilt by houses. On the other hand, in Terrace III the burial use of former habitation areas is attested as early as the transitional EH/MH period and continuous until the later part of the MH.

At the west part of the Large Trench the use of space alters between habitation and burial already from the earlier phases of the MH period until MH III. Graves were usually opened upon abandoned houses, although few of them, mostly sub-adults, may have been contemporary with some houses. In the east part of the Large Trench some graves were opened upon abandoned houses for the first time during the early MH II period, while others, mainly sub-adults, may have been contemporary with the houses.

[145] Contra Georgousopoulou (2004, 207-213).

The same practice continued until the late MH phases. Moreover, a strong contrast between the east and the west side of the Large Trench concerning density of graves has been observed, especially during the late MH II-MH III period. The burial use of the west part was much more intense (Nordquist and Ingvarsson- Sundström 2005, 161).

MH III adult graves were also opened upon abandoned houses at the Geometric Terrace of the Acropolis, at the periphery of the settlement. Generally, on the Acropolis primarily adult graves were placed upon earlier architectural remains. Only one possibly sub-adult burial was found in this area. However, we cannot say whether burying a sub-adult on the Acropolis was an early or a late development as the grave cannot be dated.

Finally, the three graves securely dated to the transitional MH III/LH I were, once more, opened upon ruined houses of the Large Trench. These burials belonged to two adults and one sub-adult. No later graves have been found in Kastraki.

Overall, adults and sub-adults were buried in the settlement throughout the period and sub-adults predominate. However, it is not clear whether their proportion changed through time. What is important is that the graves at Kastraki formed clusters already from the earlier MH period. Grave clustering and their close relation to free-standing houses continued until the latest phases of the settlement. These clusters were primarily age-based throughout the period.

Moreover, age differentiation is not only observed between the different grave clusters but also between the centre and the periphery of the settlement. For example, only occasionally were sub-adults buried on the Acropolis and in Terrace II, which is located at the edges of the settlement, close to the Acropolis. On the contrary, mainly sub-adults were buried lower on the hill in Terrace III and in the area of the Large Trench. This differentiation was already observed from the early phases of the MH period. The presence of many undated graves, however, does not allow us to study if this pattern became more or less clear through time. Nevertheless, it seems that the area outside the core of settlement was not considered suitable for the sub-adult age category. This preference was more clearly manifested in the creation of the extramural East Cemetery (see chapter 2.6).

We see therefore that burials at Kastraki were placed at different spatial contexts, probably throughout the period:

- Burials upon abandoned houses, in areas that were left free from habitation.
- Burials at the courtyards of houses still in use.
- Burials inside houses still in use.
- Burials at the periphery of the settlement.

Therefore, the general characterization of all burials as intramural is neither accurate nor sufficient to describe the diversity of the burial settings. Moreover, the detailed description of the different burial contexts in the settlement allows us not only to study differentiation but also to better understand the creation of the extramural cemetery during the MH II period. I will return to this point later.

Compared to Lerna, despite the overall similarities a series of differences are observed. Accordingly, the placement of adult graves in the settlement starts earlier in Kastraki and the same holds true for the creation of grave groups, which begun already during the EH/MH period. Moreover, in Kastraki the choice of burial location was more directly and consistently related with age at death. In Lerna clear age differentiation in space was noted during the EH III and again during the SGE. Finally, in Kastraki burials were also placed at the periphery of the settlement from the early phases. A similar pattern has not been observed in Lerna, at least in the part of the settlement excavated so far.

ii. Grave types

I will now turn to grave types and examine change through time in their quantity, in their mode of construction and in their correlation with different age categories. The analysis here is based on half of the graves, i.e. on those which can be dated.

Overall, in Kastraki three different grave types were used: jars, pits and different types of cists. During the transitional EH/MH period a couple of adults were buried in stone-lined pits. A stone-lined pit was also used in the MH I period for a double adult-neonate burial. At the same period however, sub-adults were buried in the settlement and the number of adults increased. As a result, more diversity is observed. Burial jars were for the first time used only for sub-adults, simply pits were equally used for sub-adults and adults, while cists were only used for adult burials.

During the next MH II period stone-lined pits were not used anymore. Burial jars were still used as containers for a few sub-adults, simple pits were primarily used for sub-adults and the only cist dating to this period was used for an adult.

In the following MH III period the use of jars and pits does not change. However, the frequency of pits declines. Adults were still buried in cists but now sub-adults were also buried in them for the first time.

Finally, during the transitional MH III/LH I the use of burial jars ceased, while the only simple pit from this period belongs to an adult. Cists (2) were used for adults and sub-adults.

In general, adult pits only occasionally date from the late phases, while more cists were probably used towards the end of the period. The lack of dating for the majority of the cists, however, makes it impossible any possible to observe changes in detail.

Concerning grave furnishings, floors and covers were only occasionally found in pits, from MH I until MH III. Floor and covers were more often used in cists again throughout the period.

We see therefore, that in Kastraki change through time has been observed in the frequency of different grave types and in their use for different age categories, rather than in the introduction of new types. Actually, fewer grave types are used as times passes and standardization increases.

In Lerna on the other hand, higher degree of differentiation and diversity was observed during the later period, as new cist types are introduced. Change through time at this site was more apparent, especially after the MH II period, when jar burials ceased and cists were probably introduced.

iii. Pottery

In this section change through time in the presence, quantity and quality of pottery offerings and their correlation with age groups and grave types will be examined.

To start with, pottery has not been found in the EH/MH graves. During the MH I period pottery was used as grave offering for the first time. Two vessels were deposited in two burials, one single adult and one double adult-infant burial.

During the next MH II period again two vessels were placed in two burials, both adults.

In the following MH III period the total number of vessels deposited in the graves increased. Seven vessels were placed in six burials, three adults, two sub-adults and one double adult burial. This was therefore the first time that pottery was deposited in

single sub-adult burials and that two vessels were placed together in a probably adult burial.

Finally, during the transitional MH III/LH I period more than one vessel was always deposited in the graves. In particular, five vessels were found in two graves, one adult and one sub-adult. We see therefore that after the MH III period relatively more pottery was deposited in the graves. However, the amount of vessels in each grave remained small.

In general, cists containing pottery were later than pits and stone enclosures containing pottery. In the early phases, coarse and medium-fine wares were used with the same intensity. Fine-medium wares predominate in the late phases. At the same time, more whole vessels were placed in the graves. Finally, the few imported vessels date from all phases.

To conclude, at Kastraki during the late phases more vessels of better quality were placed mainly in cists. However, large amounts of pottery placed in elaborate grave types are missing. Sub-adults start receiving pottery during the late phases.

In contrast, in Lerna the earlier burials containing pottery belong to sub-adults. At this site as well both the quantity and the quality of pottery found in the graves increased through time.

iv. Other finds

Some changes through time have also been observed in offerings other than pottery, but they were minimal.

The EH/MH graves did not contain any kind of offering. Non-pottery objects were first deposited in two graves during the MH I period (MH59, MH98).[146] These were stone and bone tools, a terracotta whorl and bronze ornaments, all placed in adult burials. Animal bones have also been found in two MH I adult burials (MH60, MH89), where some neonate bones were also found.

Simple hunting stone and bronze weapons were occasionally placed also in adult burials after the MH I period until the MH III period. During the MH II period only animal bones have been found in an adult male (MH58) and two infant burials (MH66, MH102). In MH III bronze tools and a bronze pin were placed for the first time in two

[146] In grave MH98 neonate bones were also found during the anthropological study of the skeletal material (Ingvarsson-Sundström 2003, 49).

adult burials, a pit (MH107) and a cist (MH52-53). In the final MH III/LH I period bronze ornaments and a terracotta whorl were placed in two adult burials, a pit (MH23) and a cist (MH4). At the same time animal bones and a sea shell were placed in a sub-adult burial (MH18).

Silver and golden objects are missing from the graves at Kastraki.

To conclude, no major fluctuations have been observed in the deposition of non-pottery offerings. However, the variety of bronze objects increased from MH III onwards. During the MH II period offerings other than pottery (organic finds) were deposited for the first time in a sub-adult burial. Finally, all three MH III/LH I graves contained non-pottery objects.

If we compare to Lerna, in Kastraki bronze objects were first deposited in graves earlier. On the other hand, silver ornaments and semi-precious stones have been found in Lerna but not in Kastraki. Finally, in Lerna all object categories were found in adult and sub-adult graves, although in different frequencies. Ornaments in particular were strongly correlated with sub-adult burials and their frequency increased through time.

v. Mode of disposal

Concerning the mode of disposal of the dead great homogeneity is observed through time, and only a few changes have been observed. Overall, single, primary, contracted inhumations predominate throughout the use of Kastraki as a burial ground.

All burials from the EH/MH until the MH III/LH I were inhumations. The majority of them were single burials. However, double burials occurred occasionally from the MH I until at least the MH III period. Secondary treatment of the skeleton was also exceptional. One of the two secondary burials possibly dates from MH II period, while the second is undated.

Finally, change through time has been observed in the placement of the upper body. Contracted on back skeletons mostly belong to the late phases. Extended skeletons however, are missing from Kastraki. Although the number of dated skeletons is once more very small, it seems that a larger variety of body positions existed during the early phases. As time passes body position became more standardised.

In Lerna secondary treatment of the skeletons increased during the MH III-LH I period and extended skeletons became more frequent during the same period.

2.6 EAST CEMETERY (Tumulus IQ): THE CEMETERY

2.6.1 Introduction

The East Cemetery (EC) of Asine was situated in the plain about 100m east of the settlement on the Kastraki hill. The Tumulus IQ and the cemetery around it were erected just above the sandy beach, at the current Karmaniolas property (Dietz 1982, 8). The main excavation area was divided into two sectors; the Main Sector, included areas I and II, and the East Sector. The EC and the Tumulus IQ were found in the western part of the Main Sector (Fig. 131) (Dietz 1982; Dietz 1980, 17).

A serious obstacle during the excavations was the high underground water table. A lot of graves were totally covered with water, causing problems in the detailed recording of the grave features. The graves were numbered separately every excavation year. The excavation year followed by the grave number are used in the publications and also followed here e.g. 1970-12, 1971-6.

In total, 20 graves have been excavated in and around the tumulus (Fig. 132, 133). It should be noted, however, that only a part of the cemetery has been excavated. The west part of the tumulus and possibly the west extension of the cemetery were left unexcavated, as they were outside the limits of the rescue excavation at the Karmaniola property (Dietz 1980, 71).

The tumulus was constructed of two superimposed stone covers forming a low mound, not preserved in the centre, while two rows of stones, found at the north and south parts of the excavated area, may once have formed a stone enclosure around the cemetery. However, those two circles are not concentric (Fig. 134). Graves were placed upon and around the tumulus, sometimes disturbing the hypothetical periphery of the enclosure (Dietz 1980, 71). The chronological relation of the various features will be discussed below.

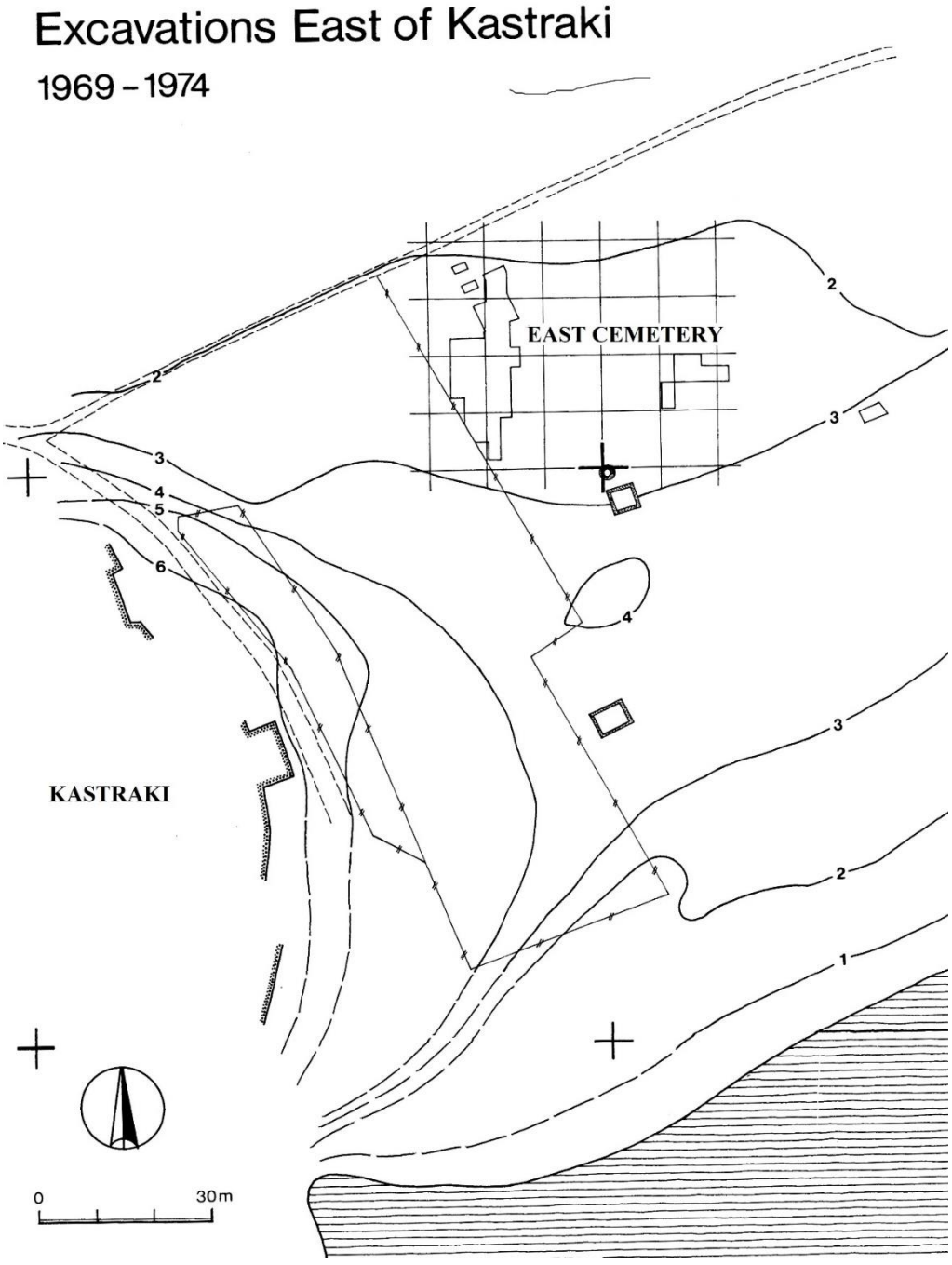

Fig. 131: excavation areas east of Kastraki, at the Karmaniola plot (after Dietz 1982, fig.3).

Fig. 132: Vertical view of tumulus IQ (from Dietz 1980, fig. 4).

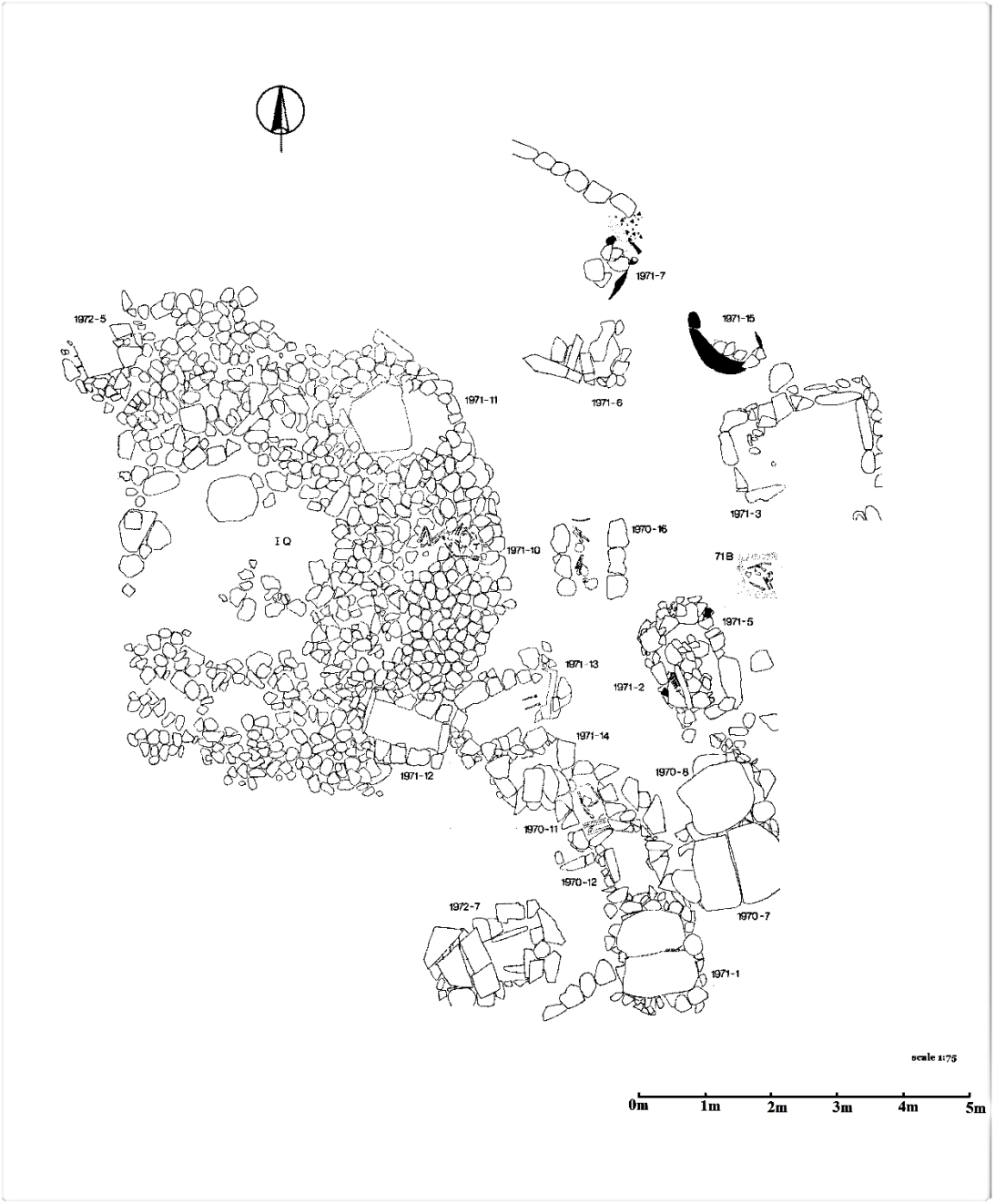

Fig. 133: The East Cemetery and the Tumulus IQ (after Dietz 1980, fig.3)

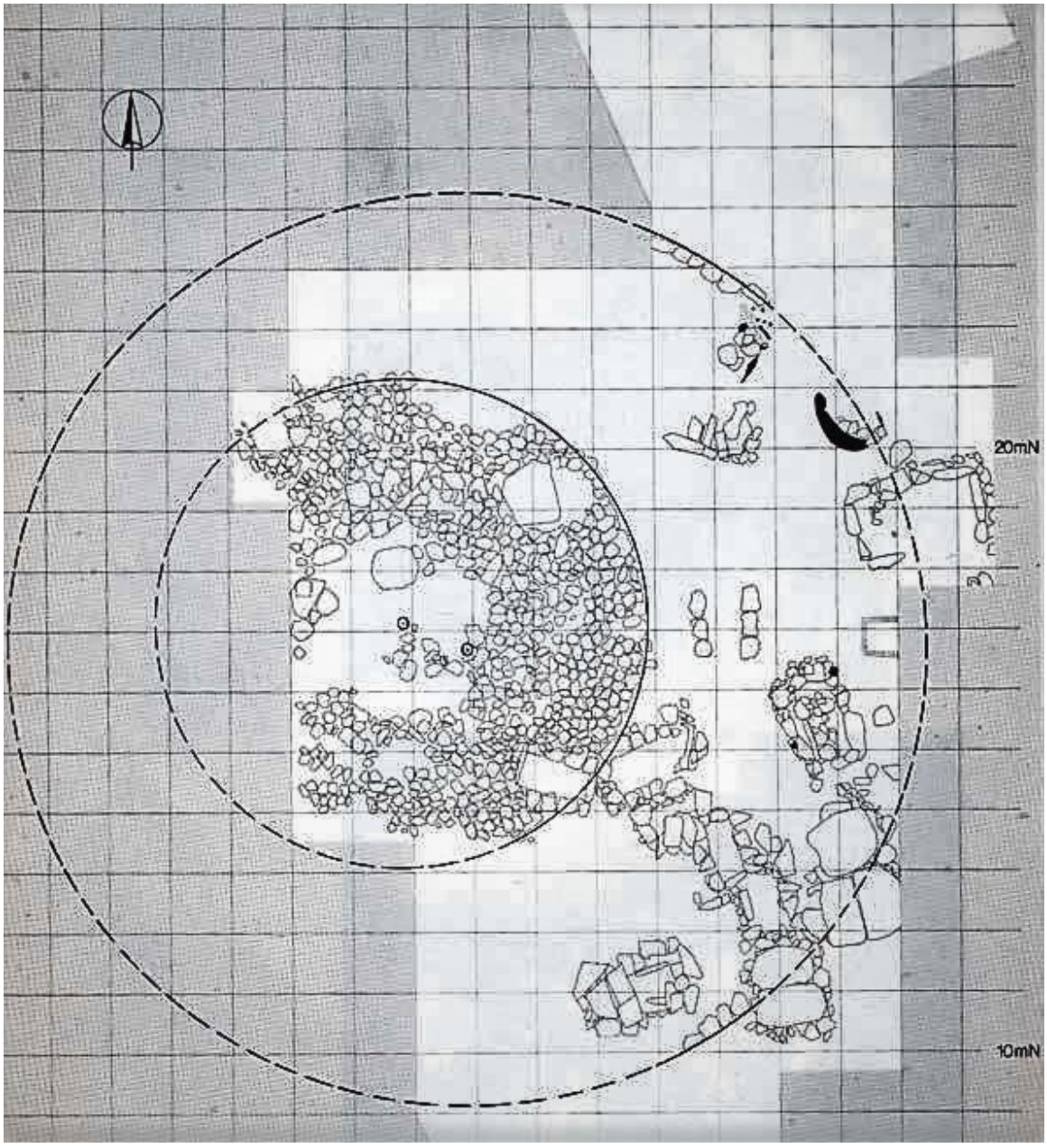

Fig. 134: Reconstructed plan of the cemetery. Scale 1:100 (from Dietz 1980, 70).

2.6.2 Dating

A relative dating for most of the graves was given by Dietz, when he first published them (Dietz 1980). He later refined the terminology used for the later part of the MH period and the transition to the LH period (Table 120) (Dietz 1991). The refined terminology will be followed here, when discussing relative chronology.

Dietz 1980	Dietz 1991
---	MH IIIA
MH IIIA	MH IIIB
MH IIIB/LH I	LH IA
---	LH IB

Table 120: Terminologies used by Dietz (after Voutsaki et al. 2010, table 6)

It should be stressed, however, that the placing of a grave in a particular chronological phase is, in most of the cases, rather hypothetical. This is because of lack of stratification, as all the graves were found more or less at the same level and because of lack of dateable objects, and especially pottery, from most of them. Thus, the suggested dates were usually based on the relation of the graves to the tumulus covers, to the stone enclosure and to nearby graves. Five graves, however, could not be placed with certainty to one of the sub-phases and are generally dated to the MH period.

Based on stratigraphical observations and on dateable artefacts the history of the cemetery was reconstructed by Dietz as follows (Dietz 1980, 71-88; Dietz 1991, 145):

The brick cist 71B is probably the earliest grave found until now in the area east of Kastraki. It possibly dates to the transitional EH/MH period and thus predates the construction of the tumulus.

Dietz believes that the lower tumulus cover (cover 2) was erected during the early part of the MH II period. According to him, grave 1972-5 found at the periphery of this cover was possibly contemporary with the construction of the lower cover, as it was found embedded deep in it. The possible stone enclosure was probably built during the same period.

The upper cover (cover 1) was probably constructed during the later part of the MH II period. Two graves, 1971-11 and 1971-12, that have been found inside the periphery of the upper cover were considered to be respectively contemporary with and later than it. 1971-11 fits well in the upper cover periphery, while 1971-12 interrupts it. Three more graves, 1970-11, 1970-12 and 1971-14, found outside the tumulus were also placed in the late MH II period. The chronological placement of those graves was based

on the dating in the later part of the MH II period of a gold diadem found in 1970-12, and the stratigraphic position of the remaining two graves in relation to the first.

The dating of the two superimposed tumulus covers was based on pottery sherds found between them. Critical for the dating was the presence of few Yellow Minyan sherds, which was thought to appear late in MH II (Dietz 1980, 18, 87). Thus, the upper cover could not have been constructed earlier than the late MH II period.

The four graves- 1970-7, 1970-8, 1971-1, 1971-15- which cut the reconstructed periphery of the stone enclosure and were placed at some distance from the tumulus were thought to be MH III or, at least, late MH II. 1971-15, a double pithos burial contained pottery, but Dietz could not find exact parallels to date it with more precision. Two other graves, 1971-2, 1971-5, were placed in Dietz's MH III period (Dietz 1991, 145, 181). Grave 1971-2 contained vases dateable to the MH IIIB period. Based on stratigraphy, grave 1971-5 was earlier than 1971-2, but it was difficult to estimate how much earlier.

Finally, graves 1971-3 and 1971-10 date to LH IA period and, according to Dietz, were the latest graves of the cemetery (Dietz 1980, 88; Dietz 1991, 145). The finds from grave 1971-3 (16 vases and a bronze dagger) are closely related to the finds from the Grave Circle B at Mycenae, confirming its late dating. Grave 1971-10 was placed above the upper tumulus cover, at a time when the cover was not visible anymore. Dietz (1980, 17-18, 87) dated this grave based primary on its stratigraphic position and on the existence of 'red-slipped Aegina' sherds found between the grave and the upper tumulus cover. 'Aegina red-slipped' ware was though to represent a rather late development within MH pottery. A bronze knife and a gold ring found in the same grave were not dated more closely.

The remaining five graves of the cemetery are generally dated to the MH-LH I period (1970-16, 1971-6, 1971-7, 1971-13, 1972-7). The latest use or visit of the cemetery is indicated by two LH IIA vases (nos. 14-15), found in a 'pocket' in the northern periphery of the tumulus.

To sum up, according to Dietz the EC and the tumulus IQ were erected in an area possibly already used for burials in earlier times. The earliest grave of the cemetery was placed into the tumulus during the early MH II period, when the lower tumulus cover was erected. During the late MH II period, the upper cover was constructed and more graves were placed in the tumulus. At the same time, graves were also placed outside the tumulus. All the succeeding graves were opened outside/ around the tumulus. Only

during the LH IA period a burial was placed upon the tumulus, at a time when the stone cover was not visible any more.

Recently, a radiocarbon C^{14} analysis of human bones was carried out under the MH Argolid Project (Voutsaki et al. 2010; 2011). In total, twelve samples were analysed and ten of them gave reliable results. Through a detailed analysis of all the available information, S. Voutsaki, S. Dietz and A. Nijboer tried to integrate the relative and the absolute dates and they proposed revised dates for the analysed burials, but also for some of the other graves (Tables 121, 122).

Grave number	Relative date based on stratigraphy and finds	Relative date based on C^{14}, stratigraphy and finds	Absolute date (2 σ calibration)
1971-15	MH II late-MH III	Probably MH I-II	2020-1770BC
1971-12	MH II late	Probably MH I-II or early MH III	2000-1770BC
1971-3	LH IA	Outlier	1930-1740BC
1971-5	MH II or MH IIIA	MH II-III	1900-1680BC
1970-12	MH II late	MH II late or MH III	1880-1640BC
1971-2	MH IIIB	MH IIIB-early LH I	1880-1620BC
1971-11	MH II late	MH III-LH I	1870-1600BC
1972-5	MH II early	MH III-LH I	1770-1530BC
1970-11	MH II late	LH I-II	1730-1510BC
1972-7	MH	LH II (for the child burial)	1610-1410BC
1971-1	MH II late-MH III	Unreliable result	---
1971-7	MH III?	Unreliable result	---

Table121: original and revised dates of graves where radiocarbon analysis has been contacted (after Voutsaki et al. 2010, table 7)

	'Low' Chronology	**'High' Chronology**
MH I	2100-1900 BC	2200/2100-1900 BC
MH II	1900-1700 BC	1900-1800 BC
MH III	1700-1600 BC	1800-1700 BC

Table 122: relative and absolute dates of the MH period[147]

According to their analysis a different history of the cemetery was proposed:

During the MH I-II period the upper tumulus cover (cover 1) was constructed and grave 1971-12 was placed in it. Outside the tumulus, the stone enclosure was already built and grave 1971-15, a double adult burial in a large pithos, was placed upon the reconstructed part of the enclosure. The nearby grave 1971-7, a pithos also containing a double adult burial, although not analysed, probably belong to the same period because of its similarities with 1971-15 (Fig. 135).

The new dating of the upper stone cover resulted, in part, from a more accurate description of the sherds found between the two stone covers. It was realized that the reported 'Yellow Minyan' sherds actually belong to the broader category 'Argive Light Ware' (Dietz 1991). Thus, material from between the covers is not indicative of their construction because it covers a broad time span (MH II late-MH IIIB). 'Yellow Minyan' is not found before MH III. Subsequently, the revised dating of the upper cover was mainly based on the C^{14} results obtained from grave 1971-12. The results of this grave clearly support MH I-II more than MH III date. Since the grave probably belongs to the MH I-II and since it was embedded in the cover, the cover must have existed before or at least must have been constructed at about the same period. Outside the tumulus, the early dating of the pithos burial was favoured by the new, more accurate dating of the vases found outside the pithos mouth. More particularly, similar vessels were found in the early phases of Lerna (Zerner 1978; Zerner 1990).

[147] The results obtained from C^{14} analyses of the Argive sites favors a 'high' chronology for the MH period (Voutsaki et al. 2006; 2009, 2010).

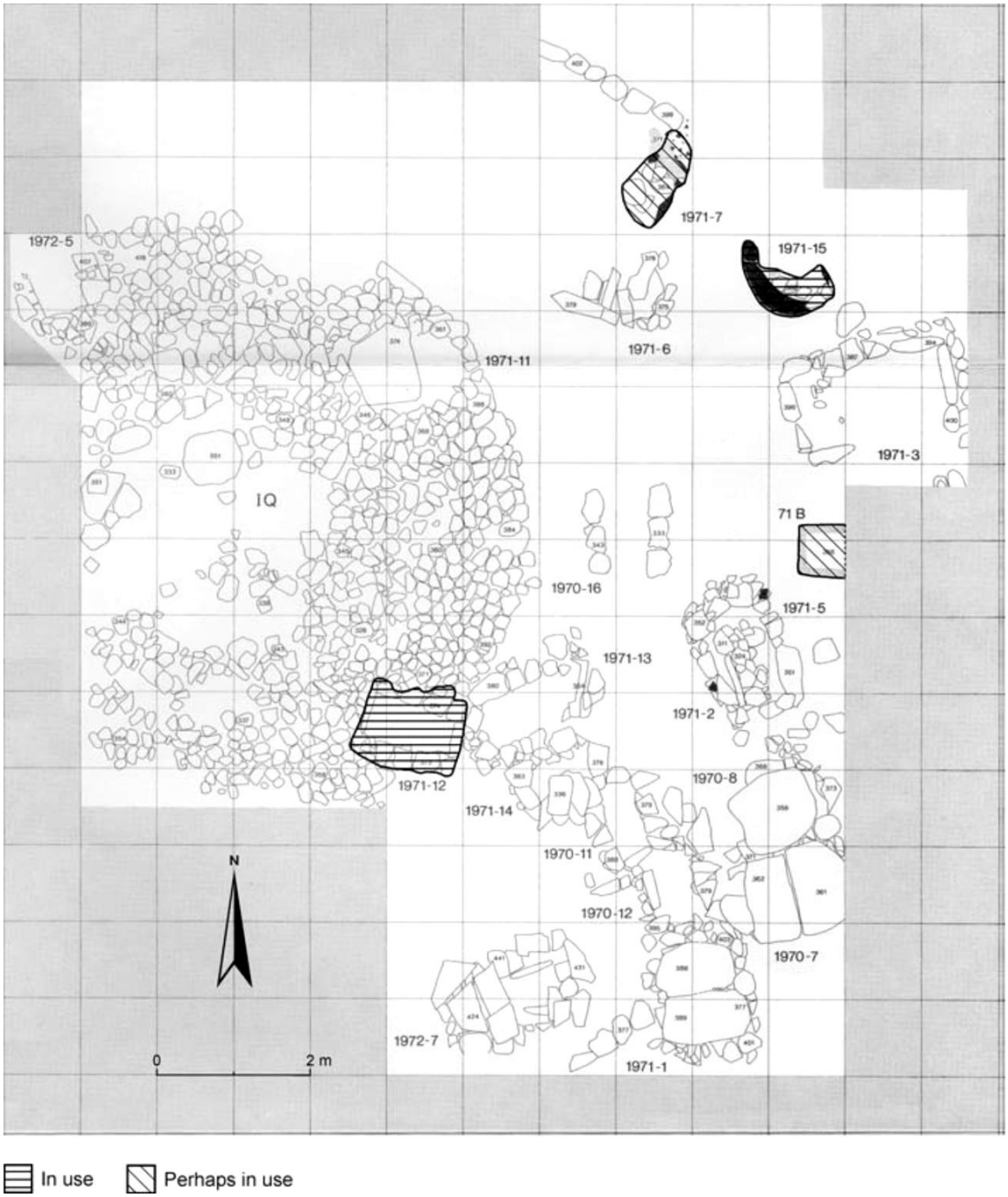

Fig. 135: MH I-II graves (from Voutsaki et al. 2010, fig.14).

During the MH II-MH III period graves 1971-5 and 1970-12 were placed outside the tumulus. The radiocarbon results confirm the relative date given for 1971-5. For the 1970-12 a MH III date is favoured but a MH II late date is not excluded either. The gold diadem found in the grave was worn, broken and repaired; it could thus have been older

than the grave.[148] It is likely that this grave is earlier than all the tombs surrounding it, but it is very difficult to say how much earlier (Fig. 136).

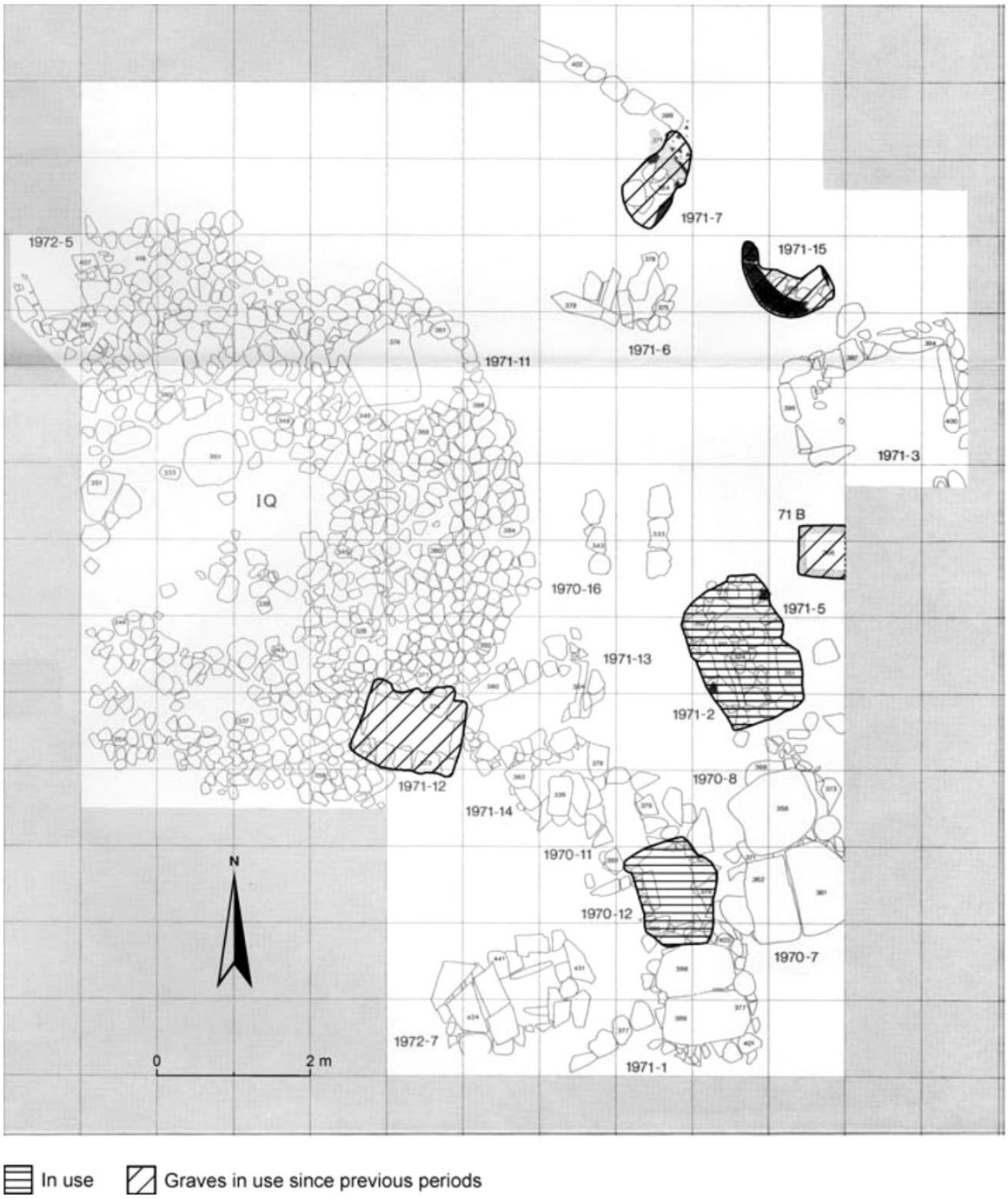

Fig. 136: MH II-III graves (from Voutsaki et al. 2010, fig.15).

[148] But the same holds true for all the offerings from MH graves. They all have worn and chipping traces showing that they were used for some time before they were deposited in the graves.

During the MH III-LH I period the majority of the graves found in the cemetery were opened, both into and outside the tumulus (Fig. 137). 1971-11 and 1972-5 were cut into the tumulus. An earlier chronology was proposed by Dietz for both graves. However, radiocarbon results for grave 1971-11, which fits well into the tumulus periphery, supports a MH III-LH I date. It is thus proposed that the grave was embedded in the upper cove after the tumulus was erected. The same seems to hold true for 1972-5, which was cut deep through the lower stone cover.

Grave 1971-10, on the other hand, was placed in the mound upon the tumulus without disturbing it. Although this grave was not sampled, its stratigraphic relations and its finds were re-evaluated. The knife found in it is of a type found in Aegina (Kilian-Dirlmeier 1997, 50-53) already in MH II but remains in use in MH III. In the Argolid a similar knife was found in the MH IIIB-LH I grave Δ, in the Grave Circle B at Mycenae (Dietz 1980, 86; Mylonas 1973, pl. 69γ). On the other hand, the 'red-slipped Aegina' sherds found between the grave and the upper tumulus cover can no longer provide a terminus post quem for the grave, and a terminus ante quem for the cover. The recent finds from Kolonna (Gauss & Smetana 2007, 62) demonstrate that 'red-slipped Aegina' ware was in use already from the beginning of the MH period.

Many more graves were opened outside the tumulus during the MH III-LH I period. 1971-2 was placed on top of 1971-5. The radiocarbon results support the MH IIIB date proposed on basis of the pottery found in the grave, though a date to the beginning of the LH I is also possible. Five more graves are placed to the MH III-LH I period: 1970-7, 1970-8, 1971-1, 1971-14, 1971-13. These graves were not analysed. Rather, their stratigraphic relation to nearby graves and the mode of their construction was consulted.

During the LH I period the large rich cist 1971-3 was opened outside the tumulus Although the C^{14} results from this grave gave an outlier result, the grave is safely dated to the LH I period on basis of its rich ceramic assemblage and its construction.

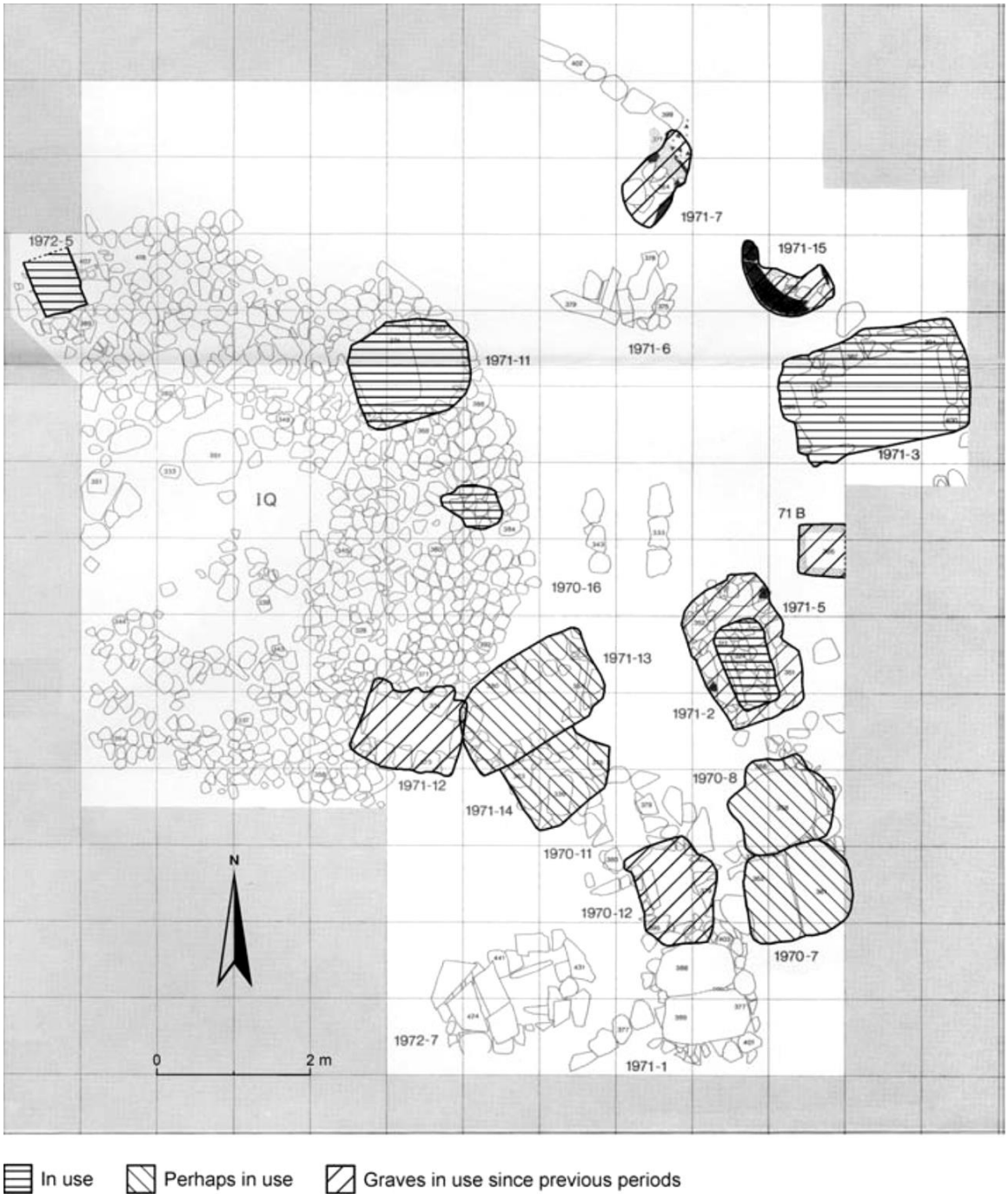

Fig. 137: MH III-LH I graves (from Voutsaki et al. 2010, fig.16).

During the LH I-II period grave 1970-11 was opened outside the tumulus. An earlier chronology was proposed by Dietz, who dated 1970-11 and 1970-12 to the MH II late period. However, 1970-11 is later than 1970-12 as its southern wall was partially built across the northern wall of 1970-12. Furthermore, the radiocarbon results of 1970-11 support a LH I or LH II date.

Finally, during the LH II period a burial was placed upon the cover slabs of grave 1972-7. A relative date for both burials, inside the cist and the burial upon it, is not given, as they are both lacking stratigraphic relations and offerings. The radiocarbon results propose a LH II or even LH III date for the burial upon the grave cover. However, the latest evidence of visiting the cemetery is two LH II vases found in the northern periphery of the tumulus. It is thus more likely that the grave belongs to this period (Fig. 138).

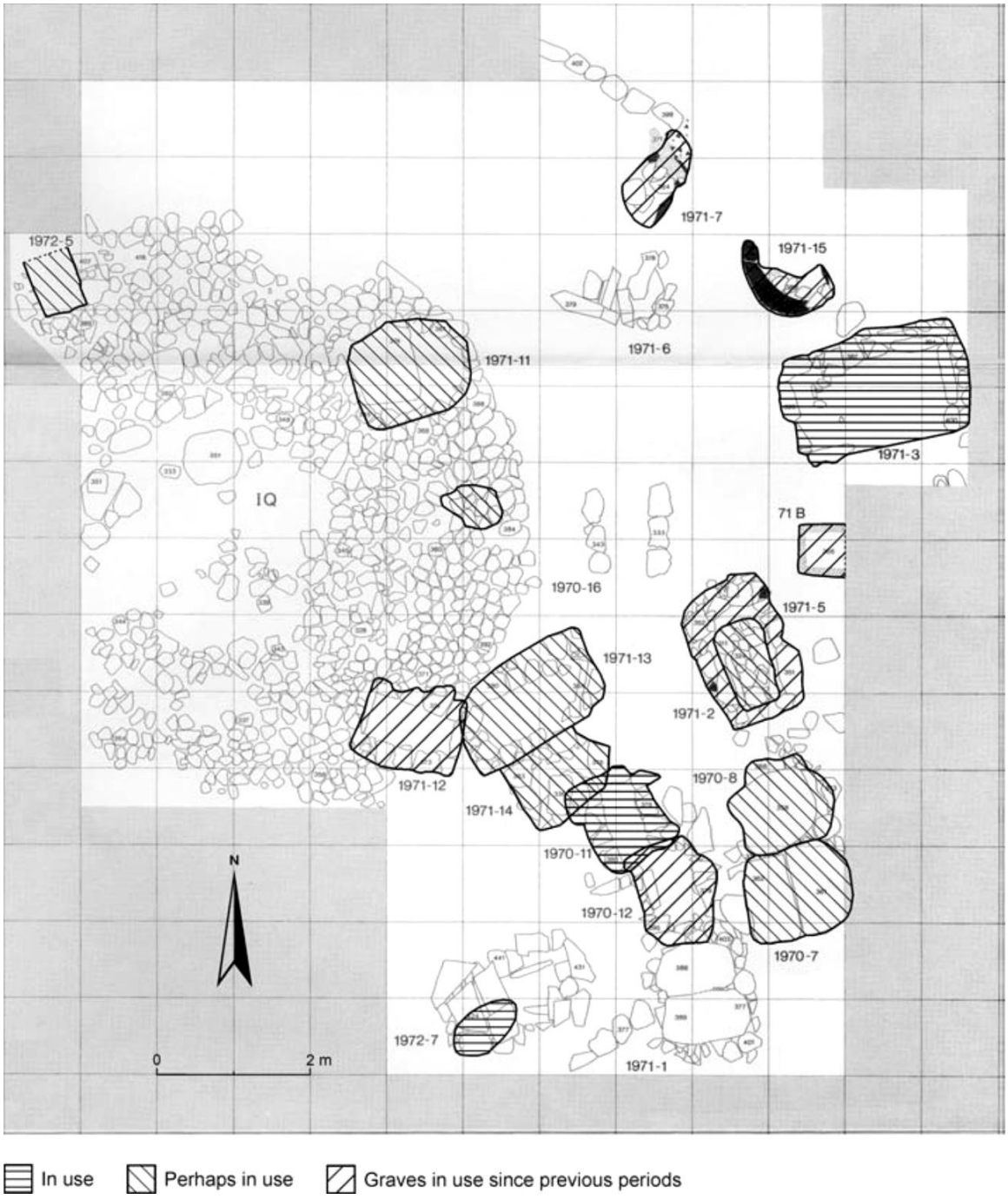

Fig. 138: LH I-LH II graves (from Voutsaki et al. 2010, fig.17).

To sum up, according to the revised chronology proposed by Voutsaki, Dietz and Nijboer the EC and the tumulus IQ were probably erected in an area already used for burials, as it is indicted from the possibly EH/MH grave 71B. The earlier graves found in the cemetery were placed into the tumulus upper cover but also outside the tumulus. These graves were opened during the MH I-II period. Thus, the lower stone cover must have been somewhat earlier. However, no contemporary burials are related with the

lower cover. During the next MH II-MH III period graves were only opened around the tumulus. Later on, in MH III-LH I period graves were again placed into but, mainly, around the tumulus. Finally, during the LH I-LH II period few graves were opened outside the tumulus.

Although we now have a very detailed and thorough analysis of the available information from the EC, the dating of the Tumulus IQ and its relation to the cemetery around it remains, in my view, rather controversial. Let me explain; the dating of the earliest burial use of Tumulus IQ is based on the C^{14} results obtained from just one grave, 1971-12. However, although a MH I-II dating for this grave is favoured, an early MH III date cannot be excluded (Table 121). Moreover, the construction of the grave is identical with MH II-III to LH I graves of the cemetery, while the remaining MH I-II graves are of different types (pithoi and brick cist). The regular construction of other graves (e.g. 1970-7, 1971-1) has been used as a criterion to date them to the MH III-LH I period. Further, the grave interrupts the periphery of the tumulus and it seems to be related with the row of graves 1971-13 to 1971-1, all later (Fig. 138). Finally, it should be mentioned that a child was buried in the grave. Finding a child burial in a well-constructed cist in an extramural cemetery during the MH I-II period in the Argolid is unique.

If we then propose that it is safer to date 1971-12 at the early MH III period, a different history of the cemetery use emerges: burials were placed in the area already during the MH I-II period, while the tumulus itself may have been erected during this time or at some time later. However, the tumulus itself, at least the part that has been excavated, was first used for burials during the MH III period. Until then, it was a standing monument in the cemetery, having a use other than burial.[149] Unfortunately, is not possible to reconstruct that use, as the centre of the tumulus is seriously disturbed and the tumulus has not been uncovered in its entity. Nevertheless, we can speculate that the demolished structure found at its centre must have had some ritual use.[150]

Moreover, the two stone covers should not necessarily be seen as belonging to different chronological phases of the tumulus. They could equally belong to the same phase. The

[149] In many sites outside the Argolid the construction of tumuli predates their use for burial. For summary of the data see Whittaker 2009, 6; 2010, 539-540.

[150] A MH I oval structure was found in the centre of tumulus A in Argos. This structure was probably connected with some kind of ritual taking place in the centre of the tumulus (Protonotariou-Deilaki 1980, 11-14; Sarri, in Voutsaki et al. 2009, 157).

lower cover with the irregular stones may have served as a bed upon which the upper cover with the carefully selected stones was placed.

In any case, what is important in the EC is that a typical extramural burial ground was erected around a tumulus construction probably already from the MH I-II period. The importance and the possible interpretations of this choice will be discussed later.

2.6.3 Cemetery location

The Tumulus IQ and the cemetery around it was an extramural burial ground, situated in a previously un-inhabited area. An earlier burial use of the area however, is proposed by the partial excavation of a brick cist grave at the east side of the cemetery. Dietz suggested that this grave was more likely to be earlier because it was found deeper than the remaining graves and it is better described as an ossuary than a grave. The use of ossuaries was more common in the EH period. If this grave, 71B, pre-dates the construction of the tumulus it may indicate that an area already reserved for burials at an earlier time (the exact dating unknown) was chosen for the construction of the tumulus cemetery. But this is an inference we cannot anymore check.

Moreover, Dietz reports (Dietz 1980, 30) that an earlier grave was found under 1970-11 and was destroyed during its construction. The existence of this grave, although of unknown date, is another indication of the possible earlier burial use of the area. However, according to the C14 analysis 1970-11 is quite late. Thus, an earlier grave does not necessarily support a pre-MH burial use of the area.

Nevertheless, the cemetery was created in the vicinity of the settlement at Kastraki and later on Barbouna and it was easily accessible and possibly even visible from the settlement itself. Hielte-Stavropoulou (2004a, 10-11) using a five location model for the placement of tumuli, puts the Asine tumulus in the ‘below the top’ category. She proposes that tumuli of this category address the landscape directly below them, in our case the lagoon and the sea, highlighting the importance of this locale.

The physical setting of the area chosen is also of interest; a land barrier between the sea and the lagoon, had only been recently created in the MH times. The new cemetery was thus erected in an un-stable and changing environment (Zanger 1994). Whittaker (2014, 99) believes that the location of tumuli close to water manifest a concern with territoriality but also a connection with spiritual features.

2.6.4 Spatial organization

Tumulus IQ was a tumulus within a cemetery, not a cemetery itself (Dietz 1980, 74). As we have seen, it was constructed by two superimposed stone covers. The lower cover 2 was made of stones embedded in a thick layer of clay founded on a pebble deposit (Dietz 1980, 17). Cover 2 was much disturbed and it was not possible to estimate its original size. Two rows of stones, however, found at the north and south parts of the excavated area may once have formed parts of a stone enclosure, connected with the lower cover, as it has been proposed by Dietz (Dietz 1980). In that case, the diameter of the enclosure with the 'older' tumulus cover placed more or less in its centre is estimated to have been 15m. This is, however, a rather hypothetical reconstruction (Fig. 134), which is not really supported by the re-analysis of graves. Grave 1972-5 found at NW area of the tumulus was the only grave found embedded in the lower cover (Dietz 1980, 71), but it is later than it.

Upper cover 1 was also damaged and partially excavated but it is possible to assume that it had the form of a circular low mound with a diameter of about 8m. The upper cover was constructed of carefully selected rounded stones (Fig. 132). The periphery of the cover was lined with a series of stones forming a circle (Dietz 1980, 17). Three cist graves were placed in its periphery.

The remaining graves of the cemetery were placed around Tumulus IQ, without respecting the limits of the proposed earlier (?) enclosure (Dietz 1980, 71). Finally, one grave was placed above the upper cover 1 at a later date without disturbing it.

Between the two covers a layer of clay was found, which contained animal bones, pebbles and a few sherds (Dietz 1980, 17).

At the centre of the tumulus, in the lower levels, a much disturbed circular structure was found. The function of this structure and its stratigraphic relation with the two covers is, however, unclear due to later disturbances (Dietz 1980, 17, 71). A similar oval MH I structure was found in the centre of tumulus A in Argos.[151] There it was interpreted as having a ritual use (Protonotariou-Deilaki 1980, 11-14). Whitaker (2014, 221) suggests that the structure at the centre of the mound may have been the primary burial of the cemetery.

The whole cemetery was covered with a layer of pebbles (stratum 12). This layer was better preserved in the southern area of the excavated part of the cemetery. It is

[151] For a review of horseshoe-shape structures at burial sites see Hielte-Stavropoulou 2001.

interesting that its extent roughly corresponds with the reconstructed periphery of the cemetery. According to Dietz (Dietz 1980, 71), however, there is not enough evidence to support the idea that the whole cemetery was a large tumulus with a centre and a periphery. Ruther, it has been proposed that the cemetery was 'sealed' at some later time, when it was abandoned and the use of the area changed to habitation. If this was the case, then stratum 12 must date from the LH rather the MH period. It should be stressed, however, that the dating of the pebble layer is once more unclear.

We see therefore that the EC was a well organised burial place with a low stone mound at its centre and with possible stone enclosures, which was 'sealed' after it went out of use. Let me now turn to the positioning of the graves in the cemetery.

a. Grave orientation

In a cemetery where a tumulus has been found it is of interest to examine whether the graves opened into the tumulus and around it were placed axially or in a circular arrangement in relation to it.

We see that the graves placed in the periphery of the upper cover (1971-12, 1971-11, 1972-5) are indeed roughly oriented towards the centre of the tumulus (Nordquist 1987, 99) (Fig. 133). The same holds true for one of the latest graves of the cemetery, the huge cist 1971-3. Based on the revised dates proposed by Voutsaki et al., three of them (1971-3, 1971-11, 1972-5) date to the MH III-LH I period, while a MH II or MH III date is possible for the fourth grave (1971-12).[152]

The remaining graves of the cemetery, however, were not placed neither axially, nor in a circular arrangement around the tumulus. They were rather constructed in relation to older graves, with which they often share walls (e.g. 1970-7, 1970-8, 1970-12) (Nordquist 1987, 99). Some of them, e.g. 1971-1, 1970-12, 1970-11, 1971-14 and 1971-13, were actually built in rows, an arrangement also attested in extended extramural cemeteries, e.g. Myloi (see chapter 1.6.3).

The most common orientations were the NE-SW (8 graves) and the NW-SE (6 graves). Graves were only occasionally orientated towards the cardinal points (E-W: 3 graves; N-S: 2 graves) (Nordquist 1987, 99). Interestingly, most of the graves at Kastraki were also orientated towards the NE-SW or NW-SE axis. It can thus be proposed, that the

[152] Voutsaki et al., however, favour a late MH II date for this grave (see above).

orientation followed at Kastraki, because of the sloping of the hill, was commonly followed even in a flat area. The dating of the graves does not seem to have been important criterion for their orientation. Moreover, age and gender of the deceased do not seem to be of importance for the orientation chosen.

To conclude, although the EC was a well organised burial ground with a tumulus at its centre, the placement of graves around it was not influenced by the existence of the tumulus. Only the few graves embedded in the tumulus were placed in an axial arrangement. Axial arrangement was also missing from 'Tumulus' A in Argos (Protonotariou-Deilaki 1980; Milka, in Voutsaki et al. 2009, 168-179).

2.7 EAST CEMETERY: GRAVE ANALYSIS

Let us now turn to graves and discuss the skeletal remains and grave types.

2.7.1 The skeletons

At least 25 skeletons have been found at the East Cemetery. The preservation of the bones was most of the times poor[153] mainly due to high under water level. 23 of the skeletons were first studied by Angel in 1972 (in Dietz 1982) and they were recently re-studied by Ingvarsson-Sundström under the MHAP (in Voutsaki et al. 2007, 70-76). The bones found in grave 71B have never been found and studied. According to Gejvall (Dietz 1980, 65), however, who has seen the bones, more than one individuals were buried in this grave.

A comparison between Angel's work and the recent re-examination shows a general agreement concerning determinations of age (Chart 127) and sex of the adult skeletons. However, Ingvarsson-Sundström uses wider age categories instead of the exact age estimates used by Angel. Moreover, a systematic study of skeletal lesions and pathologies based both on skeletal count analysis and on individual count analysis has been carried out.[154] Ingvarsson-Sundström's results will be followed here.

[153] According to Ingvarsson-Sundström, 4 adults were missing diagnostic elements for sex determination (whose sex was determined by Angel) and 5 adults were lacking applicable age indicators (whose age was determined by Angel); they could therefore only be assigned to a broad 'adult' category (Ingvarsson-Sundström in Voutsaki et al. 2007, 70-76).

[154] See Ingvarsson-Sundström in Voutsaki et al. 2007, 73.

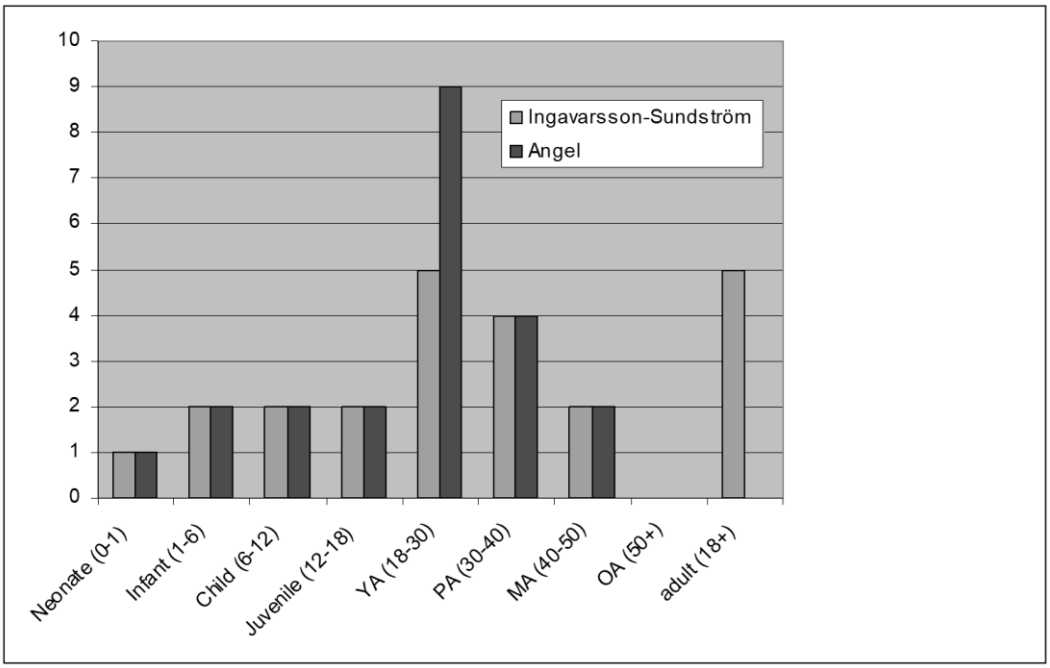

Chart 127: Comparison of Angle's and Ingvarsson-Sundström's age categories (after Ingvarsson-Sundström in Voutsaki et al. 2007, fig. 6).

According to Ingvarsson-Sundström, of the 23 studied skeletons 16 belonged to adults, two to juveniles and five to sub-adults (Table 123). Thus, adults clearly predominate in the burial assemblage. Moreover, the only neonate found so far was buried together with a YA/PA female. Based on the revised dating of the graves, this was one of the latest burials of the cemetery (1972-5). Age inclusion in the East Cemetery shows large divergence from the expected pattern: there is a clear under-representation of sub-adults, especially neonates, and over-representation of young adults. Moreover, newborns are missing. In contrast, newborn children (<1 month of age) constituted the largest age group in Kastraki, and in Barbouna as we will see later (chapter 2.11.1). It seems thus that newborn children were excluded from the East Cemetery (Ingvarsson-Sundström 2003, 136, 140; in Voutsaki et al. 2007, 70-76).

It becomes thus obvious that a striking contrast emerges between burials placed in a domestic context e.g. Kastraki, Barbouna and Lerna, where sub-adults and mainly neonates predominate, and the EC, where adults predominate and only one neonate burial has been found (Nordquist 1987; Ingvarsson-Sundström 2003; Ingvarsson-Sundström in Voutsaki et al. 2007, 70-76). This differentiation holds true from the beginning of the cemetery use. The significance of this contrast will be discussed later.

Concerning gender, the same number of males and females were buried at the EC (Table 124). It should be emphasised, however, that the estimation of sex was in most of the cases problematic due to poor skeletal preservation (Ingvarsson-Sundström in Voutsaki et al. 2007, 70-76).

Furthermore, 'extra' (or morphologically dissimilar) bones indicating the presence of at least five more individuals were found among five skeletons during the anthropological re-examination[155] (Table 125). Those bones may have resulted from accidental disturbances of earlier burials or may have been the remains of earlier burials that had been removed from the graves. In the first case their presence indicates that the previous burial use of the ground becomes more likely than we thought. However, it should be noted that most of them were adult-juvenile skeletal parts that were found in cist graves dating from the MH II-III to the MH III-LH I period. Such a pattern makes it more possible that these extra bones were the result of some conscious action. I will return to this point later.

Age category	**Approximate biological age**	**Number of skeletons**
Foetus-Neonate	premature-1y	**1**
Infant	1-6y	**2**
Child	6-12y	**2**
Juvenile	12-18y	**2**
Young adult (YA)	18-30y	**5**
Prime adult (PA)	30-40y	**4**
Mature adult (MA)	40-50y	**2**
Old adult (OA)	+50y	**0**
Adult (studied)	+18y	**5**
	Total	**23**

Table 123: Age categories

[155] According to Ingvarsson-Sundström who studied the bones, it is unlikely that the extra bones were comingled at some time after excavation (Ingvarsson-Sundström in Voutsaki et al. 2007, 72).

Age category	Male	Female	Unknown	Total
Juvenile	?	1	1	**2**
YA	3?	1	1	**5**
PA	1	3?	0	**4**
MA	1	1	0	**2**
OA	0	0	0	**0**
Adult	1?	1?	3	**5**
Total	**6?**	**6?**		

Table 124: Sex distribution

Grave	Date	Skeleton	Extra bones
1970-12	MH II-III	44AS: adult	Neonate tibia
1970-16	MH	45AS: MA male	Adult femur fragment
1971-5	MH II-III	53AS: MA female	Adult mastoid and petrous fragments
1971-10	MH III-LH I	60AS: YA male?	Adult petrous fragments
1971-11	MH III-LH I	61AS: PA female?	Juvenile talus

Table 125: Extra bones (after Ingvarsson- Sundström's data base)

Health status and diet

Angel in his report on the study of EC and Barbouna skeletons concluded that the Asine population was less healthy than other Bronze Age populations in Greece (in Dietz 1982, 105-111). He believed that inadequate nutrition and especially a lack of meat protein may have resulted in bad health. However, Ingvarsson-Sundström's re-

examination of the skeletons shows that the proportion of individuals with pathologies and musculo-skeletal markers is more or less comparable to the frequency calculated by Triantaphyllou (Triantaphyllou in Voutsaki et al. 2006, 95-102; in preparation) for the Lerna sample (Ingvarsson-Sundström in Voutsaki et al. 2007, 74-75).

If the number of individuals of unknown sex is disregarded, the higher pathology prevalence among males compared to females seems to be indicative of generally poorer health among males. According to Ingvarsson-Sundström, however, this is too simplistic an interpretation: for example, while more men than women appear to have suffered from metabolic disturbances during development, as evidenced by the prevalence of individuals with enamel defects, the opposite outcome is noticed when the enamel defects frequency is calculated from the number of (female/male) teeth (Ingvarsson-Sundström in Voutsaki et al. 2007, 75).

A stable isotope analysis of the human bones was recently conducted under the MHAP (Ingvarsson-Sundström et al. 2009). All the available skeletons from the EC and Barbouna were sampled (24 from the EC and 14 from Barbouna). From those, however, only 19 provided enough well-preserved collagen for analysis (13 from the EC and 6 from Barbouna). The analysis did not separate the results from the two different burial grounds due to small sample sizes. Thus, conclusions hold for both sites.

In general, the dietary pattern of adults and juveniles shows a heavy reliance on mainly terrestrial foods; C3 plants and a varying amount of animal protein (meat, milk or dairy products) (Ingvarsson-Sundström et al. 2009, 5-6). These values are similar to Lerna (Triantaphyllou et al. 2008). The high nitrogen values of some individuals from the East Cemetery show a substantial consumption of animal protein, although the carbon values indicate that no detectable amounts of marine foods or C4 plants, such as millet, had been consumed. Furthermore, high nitrogen values as well as the high slaughter age of domestic animals, as found in previous studies on animal bones from Kastraki point towards a significant utilization of milk and dairy products at Asine (Moberg Nilsson 1996; Macheridis 2018).

Females seem to have had more animal protein in their diet than males (Ingvarsson-Sundström et al. 2009, 7). However, it should be stressed that the statistical value of differences between the sexes is insignificant. Although admittedly based on very limited evidence, in both the early and the late phases a number of adults and juveniles at the East Cemetery, especially females, seem to have had a diet rich in animal protein. Interestingly, the highest nitrogen values belong to the female and the juvenile buried

in pithos 1971-15. It seems thus that this burial stands out in many different ways. In general, the highest nitrogen values were found in burials lacking offerings (Ingvarsson-Sundström et al. 2009, 7).

Generally, the results obtained from the EC, in particular the high nitrogen values showing consumption of animal products, are in resemblance with those from Grave Circle B at Mycenae, while a more varied animal-plant based diet has been attested in the population at neighbouring site of Lerna. A notable exception in the East Cemetery is a man (1971-10, 60AS) whose diet seems to have been largely vegetarian (Ingvarsson-Sundström et al. 2013, 156, 158).

The interpretation of breastfeeding customs in Asine is severely hampered by the small sample size of children, and the lack of individuals between 1-5 years of age. Yet, a low increase of nitrogen values in sub-adults younger than one years of age from Barbouna compared to females from the East Cemetery indicates that these children may have been fed breast milk as well as supplementary foods (Ingvarsson-Sundström et al. 2009, 9-10).

Finally, the study of pathological lesions on bones and teeth has shown that adults suffered mainly from oral health problems, while evidence of stress factors e.g. malnutrition and infectious diseases, were found in the sub-adult skeletons of all three burial grounds, EC, Barbouna and Kastraki (Ingvarsson-Sundström's 2007, in Voutsaki et al., 74-75; Ingvarsson-Sundström et al. 2013, 154-156).

To sum up on the skeletal evidence, sub-adults, especially neonates are underrepresented in the EC, while newborns and OA are missing. It is thus clear that age was a definite criterion for the inclusion in the cemetery. On the other hand, gender differentiation in the inclusion in the cemetery was not noticed though some uncertainty remains because of the indeterminate cases. Furthermore, the existence of morphologically dissimilar bones in many graves increases the minimum number of individuals buried in the cemetery and shows that the burial use of the area was more intense. Finally, clear differentiation between different segments of the population regarding health status and diet was not apparent. However, few individuals differ in diet preferences.

I will now turn to grave types and furnishings and examine age and gender differentiation.

2.7.2 Grave types and furnishings

In this section, different graves types and their furnishings are discussed and possible differentiation across different parts of the population is studied. Change through time is also examined.

In the EC three different grave types were used: burial pithoi, pits and cists (Dietz 1982). However, cists clearly predominate.

a. Burial pithoi

Two burial pithoi have been found at the East Cemetery.

The first, 1971-7, was found lay on its side. Its upper part was open and only a part of the pithos body and its rim were preserved. The pithos was repaired with a lead rivet before it was used as a burial container. Its estimated diameter was 49cm (Fig. 139).

Fig. 139: pithos burial 1971-7 (from Dietz 1980, fig. 63).

The second pithos, 1971-15, also lay on its side. The rim of the pithos was not preserved and it was already missing when the pithos was placed in the earth. Its length in the ground was about 1.20m and its width 0.70m. Pithos 1971-15 dates to the early part of MH period and the same is probably true for pithos 1971-7 (Fig. 140).

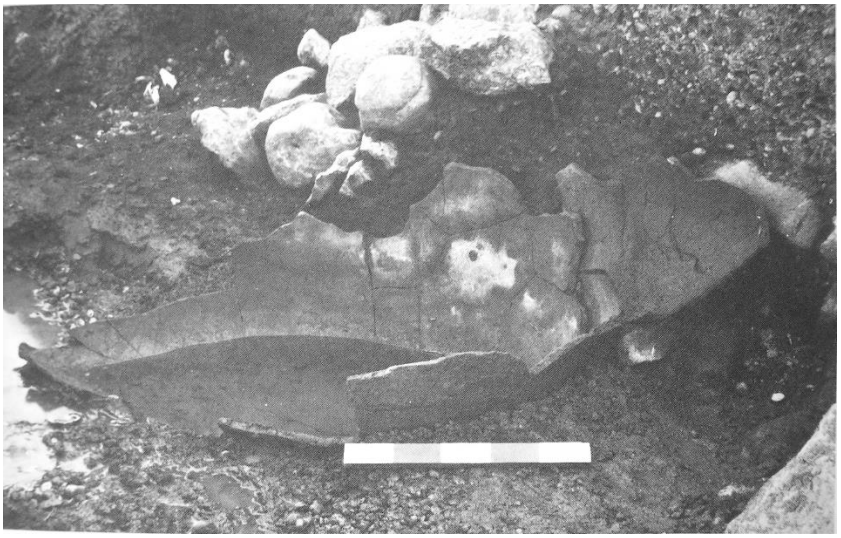

Fig. 140: pithos burial 1971-15 (from Dietz 1980, fig. 73).

Both pithoi were much larger than the burial jars used inside the settlements at Kastraki, Barbouna, Lerna and Aspis, for sub-adult burials. Both had been used long before they were utilized as burial containers.

Spatial distribution

The two burial pithoi were found close together at the NE area of the excavated part of the cemetery. Such a spatial pattern may indicate that the individuals buried at the pithoi were somehow related. They both interrupted the reconstructed outer perivolos of the cemetery.

Age and gender

Both pithoi were used for double adult/ juvenile burials. In 1971-7 a PA female was buried together with a juvenile of unknown sex. In 1971 -15 two YAs were buried, one of which was female and the second of unknown sex. In contrast with intramural contexts, large pithoi were here used as burial containers of adults and juveniles only.

Furnishings

A large bowl/jar covered the mouth of pithos 1971-15.

Marker

No grave markers have been found at the EC.

We see therefore, that double adult burials in large pithoi is an early MH phenomenon related with extramural cemeteries. Similar early pithoi with adult burials have also been found in Argos, related to tumuli but also to extended cemeteries (Protonotariou-

Deilaki 1980; Milka, in Voutsaki et al. 2009, 168-179).[156] However, they were only rarely used in the Argolid.

b. Pit graves

Grave 1971-10 was the only pit found at the East Cemetery (Fig. 141). There might have been, however, some sort of stone enclosure around the grave. According to the revised dating, the grave dates form the MH III-LH I period, it is thus one of the latest graves of the cemetery.

Again, the contrast with the intramural burial sites, where pits predominate, is marked (Nordquist 1987, 101; Ingvarsson-Sundström 2003).

Spatial distribution

The pit grave was placed in the fill 25-30cm above the second stone cover of the tumulus, close to its E end. The tumulus cover was probably invisible when the burial took place. However, the digging of the grave did not disturb the tumulus cover.

Age and gender

A YA, possibly male, was buried in the pit grave.

Furnishings

The floor of the pit was made by pebbles. The grave was found un-covered. A stone was placed to the N of the head/neck and a knife was found partly covered by the stone.

Marker

No grave markers have been found at the EC.

[156] One pithos burial was found in 'Tumulus' A and two in 'Tumulus' Γ.

Fig. 141: Pit grave 1971-10 (from Dietz 1980, fig. 66).

We see therefore that the use of pits in the EC is an exceptional, late feature. Actually, the pit was opened after the tumulus was sealed. It is thus obvious that pits were not considered a proper grave type for the tumulus cemetery in Asine. In 'Tumulus' A at Argos, which closely resembles the EC, an adult pit grave dating generally from the MH period was found inside the inner perivolos of the cemetery. More adult and sub-adult pits were found in the area outside the outer perivolos (Protonotariou-Deilaki 1980, 19).

c. Cist graves

The majority of the graves in the EC were cists. In total, 17 cists have been excavated at the EC. Different types of cists existed[157]. With the exception of the brick cist 71B, whose dating is uncertain (it may have been EH/MH but this remains an assumption), the remaining cists date to the MH II-III until the latest phases of the cemetery use. The dimensions of the cists varied considerably but they were not depending on age. Thus, the smallest cists (0.90mx0.45m) belong to adults, while the largest (1.40mx0.60m) belongs to an infant. The large cist 1971-3 (2.00mx1.00m) belongs to an adult, but this is a rather exceptional grave as we will see. Dietz (1980, 75) divided the graves into

[157] The type of two cists (1970-16, 1971-11) is unclear.

three size categories[158] and he related each category to different date. According to his model smaller cists were earlier than larger cists. Based on the revised dating, however, this model has been disproved.

Spatial distribution

Cist graves were placed both into the tumulus and around it.

Age and gender

13 adults and juveniles and all the sub-adults (5) were buried in cists. Adults of all age categories represented in the burial assemblage and of both sexes were buried in this grave type. Twice the sub-adults (a neonate and an infant) were buried together with adults, a male and a female.

Interestingly, the three single sub-adult cist burials (1970-7, 1970-8, 1970-12) were found very close together, at the SE part of the cemetery (Fig. 133). Actually, the three graves are sharing some of their walls. 1970-7 and 1970-8, in particular, are considered as a double cist. It can thus be suggested, that the spatial age clustering observed inside the settlement at Kastraki and on Barbouna is also followed here.

Furnishings

Most of the cists were covered with stone slabs (11).[159] At three graves (1970-7, 1970-8, 1971-13) conglomerate stone was used probably brought from an island offshore. Once, the cover slabs were reported to be of red colour (1972-7) and once a border of rounded stones was found around the cover slabs (1971-6). All the above cases may indicate that the graves were visible on the ground and that is why special care was taken for the appearance of the cover. Alternatively, the appearance of the grave at the time of the funeral was important, though the grave was not visible later.

In analogy with the shaft graves at Mycenae, it was proposed (Dietz 1980, 75) that a wooden cover may have existed above the large cist 1971-3. However, no traces of it were found. Moreover, the large cist from the EC was constructed with vertically placed large and flat stones, while Shaft Graves were built with rows of stones. Additionally, the existence of a shaft above the grave could not be verified, as the upper layers were disturbed by the digging of pits at later times (Dietz 1980, 36). Differentiation concerning age or gender in relation with the existence of a cover was not noticed.

[158] 1) Length between 1.10 and 1.40m, width between 0.60 and 0.80m (11 graves), 2) Length between 0.85 and 1.00m, width between 0.45 and 0.50m (3 graves), 3) 2.00x1.00m (the cist 1971-3).

[159] The existence of a cover in grave 1971-14 is ambiguous.

The recording of the existence of grave floor was often hampered by the high underground water level. In six graves, thus, the existence of a floor is ambiguous. The presence of a floor is also uncertain in grave 1971-6, which was not examined in detail and in grave 71B, which was founded in a pebble layer. Pebble floors were positively attested in seven graves and they were missing from two graves. Again no obvious differentiation concerning age or gender was observed.

Covers and floors were positively combined in four graves. All of them were adult burials, both males (2) and females (2). However, as the existence of a floor is uncertain in many cases, the two features may have been combined in more graves.

Except from floors and covers, a stone pillow was found once under the skull of a YA, possibly male, in grave 1971-1. In another grave (1971-10) a stone was placed to the N of the head of a possibly YA male. A knife was found partly covered by the stone. Finally, a stone was placed upon the chest of a YA male (1970-11) (Fig. 142). It seems thus that furnishings other than grave cover or floor, were more common in male graves. These furnishings however, were nothing more than some stones.

Marker

No grave markers have been found at the EC.

Fig. 142: Grave 1970-11 with a stone upon the chest of the burial (from Dietz 1980, fig. 17).

To sum up, cists clearly predominate in the EC from the MH II-III onwards. Age and gender differentiation in the use of cists was not observed. However, sub-adult cists cluster together. Finally, some instances of gender differentiation were noticed in the use of furnishings other than grave covers and floors. Such furnishings have only been found in male graves.

Although the contrast with Kastraki, where pits predominate and with Barbouna, where both pits and cists were used is striking, some caution is necessary. In Kastraki and Barbouna pits were mainly used for neonate-infant burials, which are missing from the EC. Furthermore, in both sites pits were only exceptionally found in the periphery of the settlement (once a pit grave was found on the Acropolis of Kastraki), at some distance from the habitation area, on the Acropolis of Kastraki and on the terrace above the houses at Barbouna. We can thus conclude that pit graves in Asine were an intramural grave type, most of the times closely related with age.

If we now turn to cist construction, four different types have been found at the EC: there were cists with walls formed of vertical placed stone slabs, cists with walls formed of horizontally placed stone slabs or irregular stones, one brick cist and mixed type cists.

i. Cists with walls formed of **vertically placed stone slabs (Cist 1; orthostat cist)**.

Four[160] graves were built with vertically placed stone slabs. They all date to the MH III-LH II period. Although this grave type was the most frequent at Kastraki and Lerna, at the EC cemetery it is equally represented with cists built with horizontally placed stones in rows.

Spatial distribution

No spatial pattern concerning their distribution emerges.

Age and gender

Mainly adults (2 males, 2 females) were buried in this type of grave. Once, a neonate was buried together with a female.

Furnishings

Two of them were covered and two positively had a stone floor.

Thus, in the EC this was a late grave type, almost exclusively used for adults.

ii. Cists with walls formed of **horizontally placed stone slabs or irregular stones** (**Cist 2**)

Four[161] graves were built of stones placed in horizontal courses (Fig. 143). They date from the MH II-III until the LH II period. At Kastraki this was an early cist type mainly used for adults, in contrast with Lerna where it was a late type used only sporadically, again for adult burials. This grave type is missing so far from Barbouna.

Spatial distribution

No spatial pattern emerges.

Age and gender

Mainly adults (2 males, 1 female) and an infant buried with a male, were found in this type of grave.

[160] 1970-11, 1971-2, 1971-3, 1972-5.
[161] 1971-1, 1971-5, 1971-6, 1972-2.

Furnishings

Three of these cists were covered and one positively had a pebble floor.

Fig. 143: cist grave 1971-5 (from Dietz 1980, fig. 61).

We see therefore, that this was a long-lived grave type in the EC associated with adult burials.

iii. Cists with walls formed mud-bricks, **brick cist**s (**Cist 3)**

One brick cist (71B) was found in the area east of Kastraki (Fig. 144). According to Dietz (1980, 79), this grave pre-dates the construction of the tumulus. Based on its construction and its possible use as an ossuary an EH/MH date has been suggested. However, this dating is hypothetical. The grave was partially excavated and the bones were never studied. It seems, however, (according to Gejval who has seen the bones) that more than one individual was buried there.

Fig. 144: Brick cist 71B (from Dietz 1980, fig. 82).

Two brick cists have also been found at Kastraki, indicating that this cist type was used at the MH Asine, although sporadically. However, one of the two brick cists from Kastraki (MH20) dates to the MH III period, while the other is generally dated to the MH period.

iv. Mixed type: cists with some walls formed of vertically and some of horizontally placed slabs or mud-bricks or house walls (**Cist 4)**

Six[162] mixed type cist graves have been found at the EC (Fig. 145). This was the most usual type amongst cists. The earliest graves of this type may date to MH II (or later), while the latest date to LH I. During the same time, mixed type cists was the most common grave type at Barbouna, while they were sporadically used in Kastraki.

Spatial distribution

The six mixed type cists were found close together at the SE area of the cemetery.

Age and gender

Three adults and three sub-adults were buried in mixed-type cists. All the sub-adult single burials belong to this cist type. Gender differentiation was not noticed.

[162] 1970-7, 1970-8, 1970-12, 1971-12, 1971-14

Furnishings

Three of them were covered. The covered graves belong to two sub-adults and an adult. Floors have been positively attested twice. These were the graves of an adult and a sub-adult.

Fig. 145: mixed-type cists 1970-7, 1970-8 (from Dietz 1980, fig. 14).

Thus, mixed type cists were widely used at the EC. Although both adults and sub-adults were buried in this grave type, single sub-adult burials were only placed in this grave type. Finally, spatial differentiation has been observed, as all of them cluster in the same area.

To conclude on cists, no pattern emerges for the use of different cists types through time. Even if we accept the proposed very early use of the brick cist, this grave pre-dates the construction of the tumulus and is not indicative of the development of different cist types. On the other hand, age seems to have been a criterion for the cist type used as single sub-adult burials were only found in mixed type cists. Furthermore, those graves cluster together in the same part of the cemetery. However, adults were also buried in this cist type.

2.7.3 Mode of disposal

Single versus multiple burials, primary versus secondary treatment and body position and orientation are analysed here. Our aim is to examine age and gender differentiation and possible status and kin positions on spatial terms.

a. Single and multiple burials

All burials found at the East Cemetery of Asine were inhumations. 25% of them (5) were double burials. This percentage is considerably higher than Kastraki, where only 5.4% of the burials were double/multiple, but similar with Barbouna (19%).

The double burials found at the EC can be divided into two groups: double adult burials in large pithoi (1971-7, 1971-15) and adult/ sub-adult burials in cist graves (1972-5, 1972-7). The fifth burial (71B) cannot be placed in any group, as the grave was not totally excavated and the bones have not been examined by an anthropologist.

Considering the pithoi double burials, once a PA female was buried together with a juvenile of un-known sex (1971-7) and once a YA female was buried together with another YA of unknown sex (1971-15). One of them dates to the MH I-II period and the same was probably true for the second.

In the double cist burials, once a neonate was buried together with a YA/PA female (1972-5) and once an infant was buried upon the cover slabs of a PA male burial (1972-7), probably at some later time. Therefore, we are dealing here with two different practices. The first burial dates to the MH III-LH I period, while the second is probably the latest, dating to the LH II period.

As mentioned above, the two pithoi were found close together. This is not the case for the two cists with double burials, which are also dissimilar. The two double pithos burials and the double female-neonate burial should be considered as simultaneous interments, as no indications exist for re-opening of the graves. The infant burial upon the cover slabs was probably placed later than the burial in the grave, but without disturbing it.

Next to the double burials, additional bones belonging to individuals other than the main interment were found to another 25% (5) of the graves during the anthropological re-examination of the skeletons (Table 125) (Ingvarsson-Sundström in Voutsaki et al. 2007, 70-76). Usually, adult/juvenile bone fragments were found together with the skeletons of adult individuals (1970-16, 1971-5, 1971-10, 1971-11). In one occasion, a neonate bone fragment was found in an adult grave (1970-12). The graves where extra

bones have been found date to the MH II-MH III and the MH III-LH I periods. The occurrence of these bone fragments may indicate that the graves were used earlier and the first occupants were removed before the last burials took place. As the bone fragments belong mainly to adult/juvenile skeletons their fragmented condition is probably not the result of poor preservation and recovery, as would have been the case with neonate/infant skeletons. Alternatively, the occurrence of these bones may signal an earlier burial use of the area, where the tumulus cemetery was erected.

To sum up, change through time has been observed in the form of double burials in the EC. The double adult pithoi burials were early, while double cist burials where an adult and a sub-adult were buried are later. In all cases however the individuals buried together could have been related. The spatial distribution of the pithoi burials may indicate that some groups were more aware in emphasising their common identity.

b. Secondary treatment

The secondary treatment of the human skeleton raises questions about the burial ideology, but also of kin relations and memory, which will be our focus here.

Unfortunately, the study of the secondary treatment of the skeletons at the EC was seriously hampered by the high level of the ground water inside the graves. In six occasions the bones were collected under the water surface (1970-7, 1970-8, 1971-1, 1971-3, 1972-7). As a result, a possible intentional disturbance of the bones could not be ascertained. The same holds true for four graves (1971-6, 1971-14, 1971-15, 1972-5), where only scanty skeletal remains were preserved. Further, two burials were disturbed by later activities, probably by chance (1970-16, 1971-2). In any case, based on the skeletal inventory of all the skeletons and on the six of them that they were articulated and sufficiently preserved (1970-11, 1971-5, 1971-10, 1971-11, 1971-12, 1971-13), it does not come out that the skeletons at the East Cemetery received secondary treatment. However, further analysis of the extra bone assemblage is necessary before we reach safe conclusions.

Finally, the interpretation of the partly excavated burial 71B as secondary on basis of the presence of more than one individuals is problematic. The bones were commingled and anthropological information is missing (Dietz 1980, 65).

To conclude, typical secondary burials or clear evidence for later reopening of the graves are missing from the EC. However, the existence of disarticulated bones from individuals other than the main burial in cists graves in an extramural cemetery cannot simply attributed to chance and requires further analysis.

c. Body position and orientation

Once more, age and gender differentiation and coherence in the burial practices will be studied in relation to body position and orientation inside the tomb.

i. Body position

Again, the high level of the ground water and the poor skeletal preservation did not always allow the recording of the body position. Such an observation was possible for about half of the skeletons (11). These skeletons were usually placed contracted either on their side or on their back. Only once the skeletons in the large cist grave 1971-3 might have been placed in extended position, but this is again hypothetical because of the high water level (Table 126). It should be mentioned, however, that this was one of the latest and the most elaborate graves of the cemetery. Extended skeletons are also missing from Kastraki, but were found twice in Barbouna. Both the extended skeletons from Barbouna were adults. At Lerna, the few extended skeletons were also adults, mainly dating to the SGE.

A tendency might have existed to lay the contracted on side skeletons on their left side and the contracted on back skeletons on their right side. However, neither the sex of the deceased nor the dating of the grave seems to correlate with body position. The tendency that was observed at Lerna, Barbouna and possibly Aspis to bury women on their left side and men on their right is not attested in the EC nor in Kastraki.

Lower limbs position	Upper body position	Side of legs	Total
CONTRACTED	**On side: 3**	Left: 3	**7 skeletons**
		Right: 0	
		Unknown:	
	On back: 4	Left: 1	
		Right: 3	
		Unknown:	
	On stomach: 0		
	Unknown: 3		**3 skeletons**
EXTENDED			**1 skeleton?**
UNKNOWN			**12 skeletons**
		Total	**23 skeletons**

Table 126: body position

ii. Arm position

The position of the arms was recorded for just five skeletons (Table 127, Fig.146, 147). Although the sample is small, it seems that no standardisation existed.

Grave	Age	Sex	Arm position
1971-10	YA	Male	A2 : One arm across waist and the other on pelvis
1971-5	MA	Female	A4: One arm across waist and the other on chest
1971-13	Adult	Female?	A5: Both arms folded across waist
1970-11	YA	Male	A7: One arm along body and the other across waist
1970-6	MA	Male	B5: Both arms bended in front of face/chest

Table 127: arm position

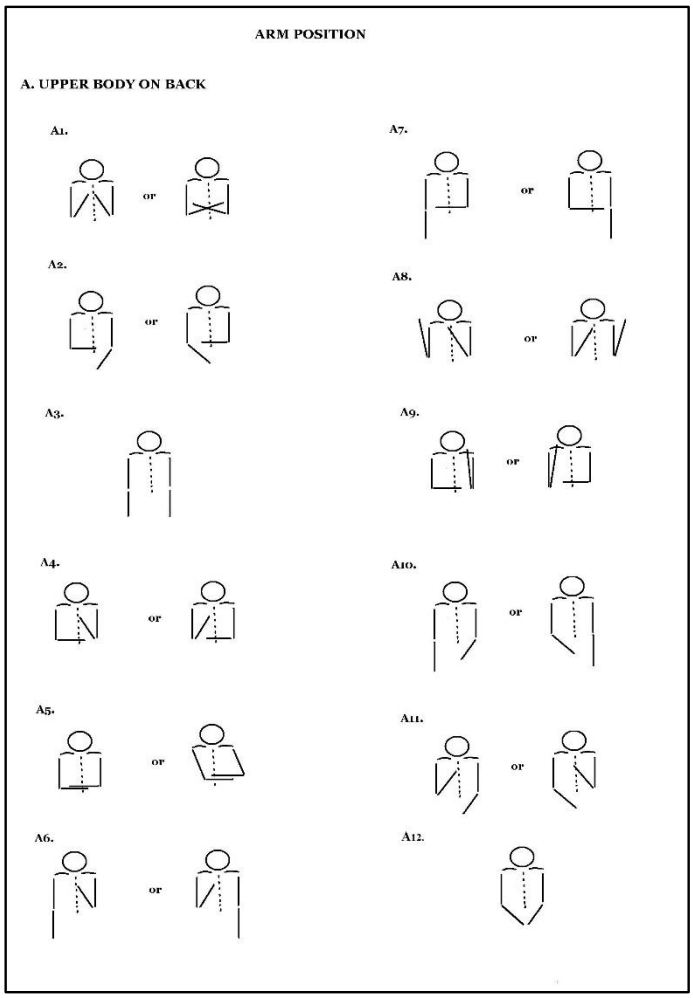

Fig. 146: arm position in contracted on back skeletons

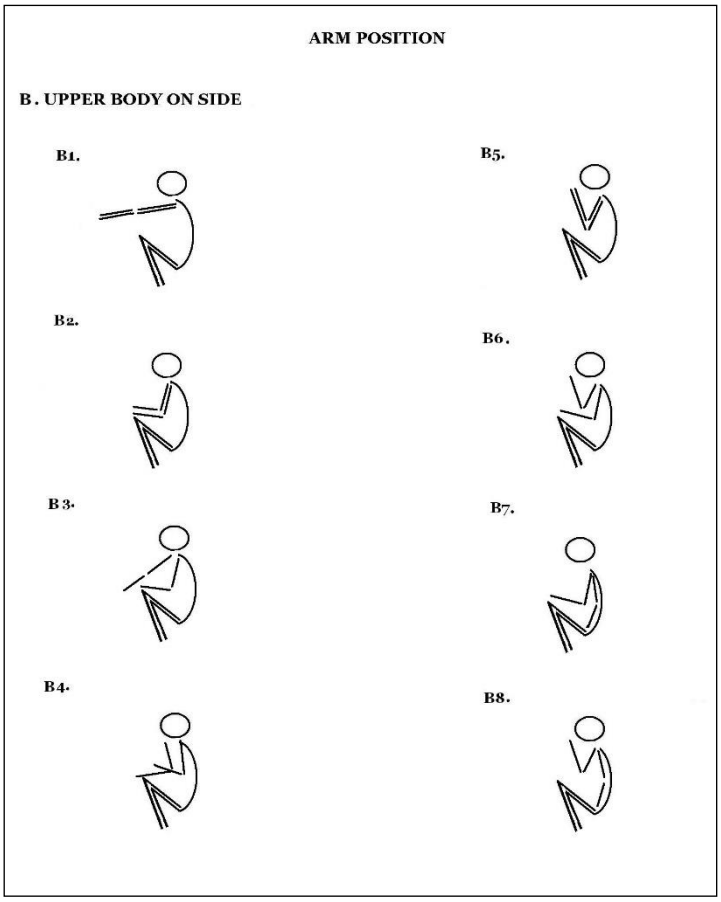

Fig. 147: arm position in contracted on side skeletons

iii. Body orientation

The body orientation of 16 skeletons has been recorded (chart 128).

Only once the head of a burial may have been pointed towards the centre of the tumulus (1972-5). This was the only grave embedded into the lower cover of the tumulus, but was probably much later than it. The skulls of two more skeletons, found in graves outside the tumulus, were turned more or less towards the tumulus (1970-11, 1970-12), but not exactly pointing to it. The majority of the skeletons were found with their skulls towards the opposite direction (NE, E). No age or gender differentiation was noticed and no temporal pattern emerges.

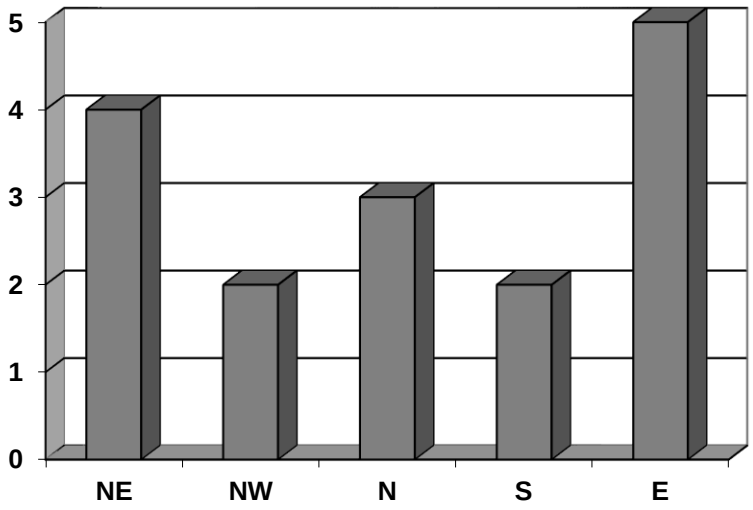

Chart 128: body orientation

To conclude on body position and orientation, age and gender differentiation was not observed. However, it should be stressed that the observations are based on limited data. Furthermore, there is no standardisation and change through time was not observed. Again, the insufficient preservation and the fragmentary state of the skeletal material do not allow detailed observations.

2.8 EAST CEMETERY: THE FINDS

Finally, objects deposited in the graves will be presented and analysed here.

2.8.1 Introduction

Grave finds have been recovered from seven graves (35%) at the EC. Of them, 23 were vessels and seven were non-pottery finds. With the exception of one cup, all the other objects are considered as real offerings, intentionally placed in the graves. Moreover, animal bones were found once (Dietz 1980).

The percentage of graves containing offerings at the EC (35%) was higher than in Kastraki (23.6%) but lower than in Barbouna (62.5%), Myloi (77.8%), but also Lerna (45.5%). Nevertheless, the composition of the assemblage should first be studied before conclusions are reached. Moreover, only graves dating from the same chronological phase should be compared.

In the following sections correlations with age grades, sex categories and grave types, as well as between the finds are examined for each object category.

2.8.2 Pottery

23 vessels were found in four graves (20% of the graves). Two cups and two jars (one of them was used to cover the mouth of the pithos) were found outside the MH I-II pithos burial 1971-15. Two jugs (one of which is double) were deposited in the MH III-LH I grave 1971-2, while a single vessel was found only once in a MH III-LH I grave (1971-10). This was the only grave where the vessel, a complete kantharos, was found 30 cm higher than the skeleton buried in a pit, and it is therefore treated as an associated find. Finally, 16 vessels (6 goblets, 5 cups, 4 jugs and a jar) were placed together in the large LH I cist grave 1971-13. The existence of so many vessels in a single burial is exceptional for a cist grave or even for shaft graves outside Mycenae.

With the exception of the four MH I-II vases found outside the pithos burial, the remaining vases date to the MH III-LH I period. During this period a general increase in the pottery found in graves throughout the Argolid is noticed. At the EC, pottery was only deposited in adult burials, both male (2) and female (2).

At Kastraki, during the MH I-II period only single vessels were deposited in graves (4). During the MH III-LH I period the number of graves containing pottery and the number of vases deposited in the graves increases. In none of these graves, however, was a large

quantity of vessels found. Furthermore, at Kastraki pottery was deposited in adult and sub-adult burials. In Barbouna during the MH III-LH I period usually more than one vessel was deposited in adult and sub-adult graves. In the extramural cemetery of Myloi adults usually received more than one vessel.

To sum up, a relatively small percentage of graves in the EC contained pottery. However, as a rule only in adult burials was more than one vessel placed. Gender differentiation has not been observed. The earlier pottery offerings come from a pithos burial, while the later come from cists burials. Interestingly, the largest cist received the larger quantity of vessels. Thus, in this case a correlation between cist size and quantity of offerings is attested. In general, during MH III – LH I a general increase in offerings and at the same time a closer correlation between different aspects of mortuary practices is observed (e.g. cist, large size, more offerings, adults).

a. Shapes

Let me now turn to the type of vessels used as offerings.

i. cups: seven cups (30.4% of the pottery) have been found in three graves. One-handled cups (3) and kantharoi (3) were the most common shapes. A Vapheio cup has also been found (Fig. 148, 149). The two one-handled cups date to the MH I-II period, while the remaining are later. Kantharoi and Vapheio cups have not been found at Kastraki. Vapheio cups are also missing from Barbouna.

Pottery sets

Two cups were found together with two jars outside pithos burial 1971-15. Interestingly, this was one of the earliest graves. In other sites pottery sets (cup-jug) set in later. In grave 1971-3 all the repertoire of shapes attested in the EC has been found.

Fig. 148: Cups MN30132 and MN30142 from grave 1971-3 (photos by the author).

Fig. 149: kantharoi MN30144 from grave 1971-3 and MN30278 from grave 1971-10 (photos by the author).

b. jugs: six jugs (26.1%) were deposited in two graves (Fig. 150, 151). In the MH III-LH I grave 1971-2 two jugs, one of which was a double jug, have been found. In the LH I grave 1971-3 four jugs, three of which were beak-spouted, were deposited.

We see therefore that jugs were only deposited in late graves. Most of the jugs from Kastraki were also late.

Pottery sets

No pattern emerges.

Fig. 150: jugs MN30273 and MN30274 from grave 1971-2 from grave 1971-2 (photos by the author).

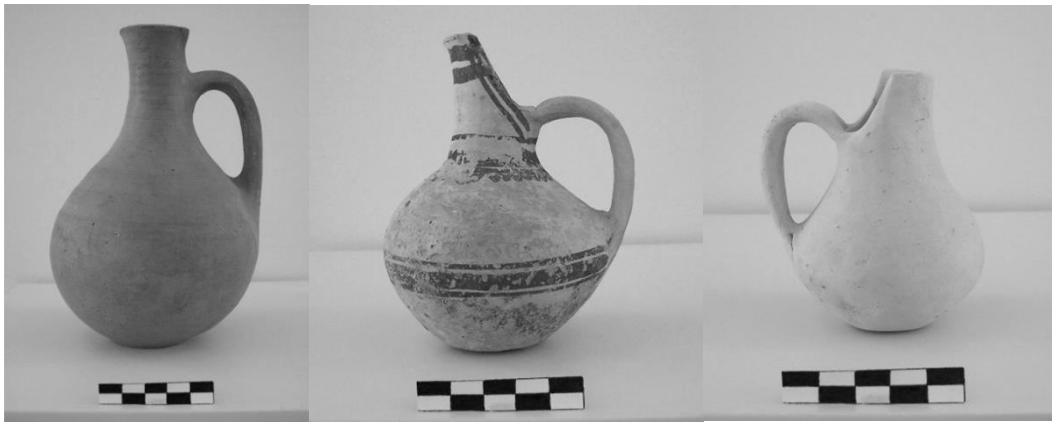

Fig. 151: jugs MN30143, MN30131 and MN30133 from grave 1971-3 (photos by the author).

c. jars: three jars have been found in two graves. Two early type jars (or a jar and a bowl) were placed outside pithos 1971-15, while a LH I bridge-spouted jar was found in grave 1971-3 (Fig. 152). Jars are missing from Kastraki and Barbouna.

Pottery sets

As noticed earlier, two jars were found together with two cups outside pithos burial 1971-15.

Fig. 152: jar MN30141 from grave 1971-3 (photo by the author).

d. goblets: six goblets have been found together in the large cist 1971-3 (Fig. 153). They date from the latest part of the period under study (LH I). Goblets have been found in all cemeteries used during the LH I period. However, the existence of large quantity of goblets in a single cist grave is exceptional.

Pottery sets

The goblets were found together with vessels of different shapes.

Fig. 153: goblets MN30134, MN30136 and MN30137 from grave 1971-3 (photos by the author).

We see therefore, that during the later phases of the cemetery use the pottery repertoire is more varied than in Kastraki but comparable with Barbouna. Kantharoi, Vapheio cups, goblets and jars are missing from Kastraki.

b. Use categories

Three broad pottery use categories are discussed here: eating and drinking; pouring; storing. Our aim is to explore which functions were chosen for burial use and to examine possible differentiation between different sections of the population.

i. eating and drinking: 13 cups and goblets belong to this category, which was the most frequent amongst the vessels. Gender differentiation has not been observed.
ii. pouring: Seven jugs and the bridge-spouted jar were used or could have been used for pouring liquids. They all date from the late part of the period under study. Gender differentiation has not been observed.
iii. storing: two storing jars, both early, have also been found. Storing vessels were missing from Kastraki and Barbouna. They were found in association with the pithos burial where a female and an adult of unknown sex were buried.

We see therefore, that eating and drinking vessels were the most common use category and the same holds true for all sites. The frequency of pouring vessels increased during the later phases in all sites discussed here.

c. Size

I will now turn to vessel size and examine the existence of miniature, small and large pots in the burials.
Five small vessels and one miniature/small vessel have been found. They were all deposited in the adult male burial 1971-3, so not with sub-adults as usually assumed.
Most of the vessels found at the East Cemetery were of medium-large size (17 vessels). Large vessels were missing from Kastraki but are present in Barbouna.

We see therefore that smaller and larger vessels were deposited together in the graves. Interestingly, the miniature vessel was found in an adult, male burial.

d. Wares

As stated before, the aim here is not to give a detailed analysis of pottery fabrics but to examine the quality of the pottery and basically fine-medium versus coarse wares. Moreover, the existence of imported pottery in the burials is discussed.

The 16 vessels found in grave 1971-3 and the kantharos associated with grave 1971-10, which both date from the late part of the period under study, are of fine-medium wares. YM and MP wares predominate. From the remaining two graves (1971-2, 1971-15) one vessel was of fine ware and five vessels of coarse ware (21.7%). It should be stressed, however, that four of the five coarse vessels were deposited together outside the MH I-II pithos burial.

To conclude, fine-medium wares predominate at the EC as it is the case in all MH/ LH sites. Coarse ware vessels date from the early part of the MH period. It seems that as time passes the quality of the pottery used during the funerals was given more importance.

Imports

A red, coarse tempered, jug (MN30274) may have been imported from the Cyclades as it is similar with a jug from Aghia Irini, Kea (grave 16) (Caskey 1972, pl.89; Dietz 1980, 85). The jug was deposited in a single female burial (1971-2) dating to the MH III-LH I period. Moreover, two GM jugs (MN30143, MN30194) and a GM cup (MN30145) may have been imported from Central Greece or they may have been local products (Fig. 154). They were all found in the LH I large cist grave 1971-3, where an adult male was buried. We see therefore that 1971-3 stands out in many different ways. A couple of possibly imported vessels have been found in earlier graves at Kastraki, while at Lerna the percentage of imported pottery found in graves declines during the late phases of the cemetery. On the contrary, 1/3 of the late extramural graves at Myloi contained imported vessels. We can therefore propose that during the late phases there is preference in extramural cemeteries for good quality, local pottery, but also for imported vases.

Fig. 154: GM vessels from grave 1971-3 (photos by the author).

e. Preservation

I will now examine breakage patterns.

i. intact or broken but whole preserved: Most of vessels from the cemetery (14) were deposited well preserved in the graves. However, they were used for some time before they were placed in the grave, as it is indicated from chipping and worn traces on their surfaces. One of them dates to the MH I-II period and the remaining from the later part of the period under study. The tendency to deposit more complete vessels during the late phases of the MH period was also observed at Kastraki, Barbouna, Lerna and Myloi.

ii. broken, sherds missing: Some sherds were missing from five vessels. As the excavation conditions, however, were difficult (high underground water level) the possibility cannot be excluded that small sherds were lost.

iii. broken, more then 1/3 missing: four vessels were partially preserved. These vessels were probably broken before they were placed in the graves. Three of them date to the MH I-II period. As we have seen, a tendency emerges at all burial places for placing more complete vessels in the graves during the late phases

iv. broken, single sherd preserved: the presence of single sherds, usually many of them, was mentioned in the grave fill of more than half (13) of the graves excavated at the East Cemetery. As the area where the cemetery was erected was uninhabited before, the sherds probably did not enter the graves by chance. The presence of single sherds in the fill of extramural graves is better interpreted as an intentional activity taking place at the time of the funeral. In other sites, broken pottery is usually found in the shaft of shaft graves, as in Mycenae and Lerna. Single sherds from the grave fill are not mentioned at Myloi.

To sum up, the tendency already observed in other sites to deposit more complete vessels in the graves as time passes was confirmed at the EC. Moreover, the existence of single sherds in the fill of many cist graves may indicate that the practise of depositing broken pottery during the funeral was not exclusively related with shaft graves, as it was widely practiced in Lerna and Mycenae.

f. Position

In this section the placement of vessels in relation to the body is examined.

The position of the vessels in relation to the skeleton was recorded only in grave 1971-2. Both jugs were placed next to the head. On the other hand, the four vessels in pithos burial 1971-15, were placed outside the pithos, in front of its mouth probably at the time of the burial. The kantharos in grave 1971-10 was found more than 30cm above the legs of the skeleton and it is treated as associated find. Finally, the 16 vases in grave 1971-3 were placed in groups in different areas of the grave (Fig. 155).

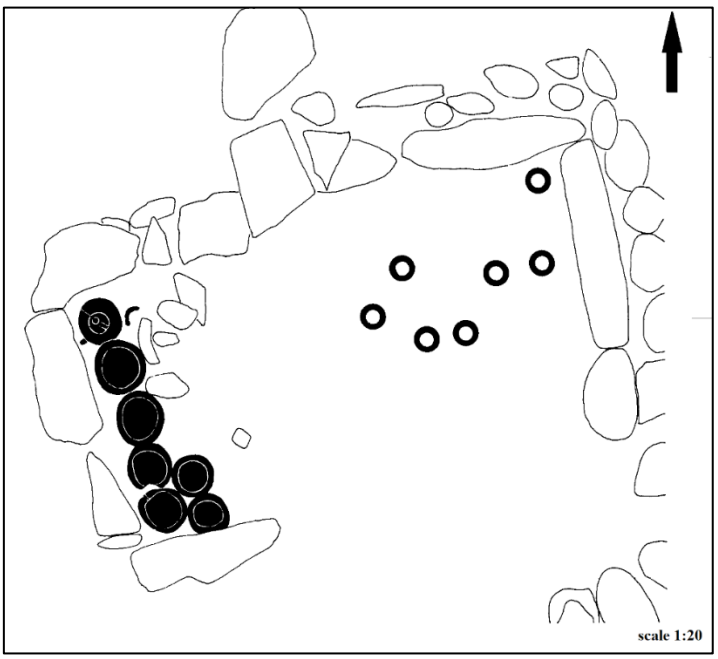

Fig. 155: plan of grave 1971-3 showing the position of vessels (after Dietz 1980, fig. 32)

Unfortunately, due to excavation conditions a more detailed analysis cannot be carried out. It seems however, that when one or two vessels were placed in the burial the area close to head was favoured. When many vases were deposited all the available space in the grave was used.

2.8.3 Non-pottery finds

Six non-pottery objects were found in four graves (20%). The percentage of graves containing non-pottery finds is thus higher than in Kastraki (12.7%), but comparable with Barbouna (18.7%). All the non-pottery objects are treated as offerings. Animal bones were found once.

Ornaments were the most common category of objects found at the EC. In contrast with Kastraki, pins, terracotta whorls, stone and bone tools have not been found. With the

exception of one terracotta whorl, the same holds true for Barbouna. We see therefore that the intramural assemblage is different from the extramural. This differentiation is not due to differences in date as in both areas most of the non-pottery objects have been found in late graves.

a. Tools

One bronze knife that could have been either a tool or a weapon is the only possible tool found in the East Cemetery. The difference with Kastraki and Lerna, where the most common category of finds is stone tools, is striking.

The knife was found in the pit burial of a YA individual, possibly male (1971-10). It was placed near the head, partly covered by a stone. This grave was one of the latest in the cemetery. It was located upon the second cover of the tumulus during the MH III-LH I period. A LH I bronze knife was also found in an adult burial of unknown sex at Myloi. At Lerna an earlier (MH II) razor blade or knife was found in a male burial.

Sets of objects

The bronze knife was found together with a gold ring. A kantharos was also associated with this grave.

b. Ornaments

Four ornaments have been found in three burials, two adult and one infant. These were three rings and a diadem or band. The diadem and the one of the rings were made of gold. Finding gold objects in MH-LH I graves is exceptional and it puts a special emphasis on the associated graves.

Beads have not been found in the EC. At Kastraki ornaments, bronze beads and rings, were only found in adult burials, while at Barbouna the same type of ornaments were found only in sub-adult burials. In Lerna they were mostly found in sub-adult burials. However, golden ornaments have only been found in the EC, in 'Tumulus' E in Argos (Protonotariou-Deilaki 1980) and in Mycenae (Alden 2000).

i. Rings

Two bronze and one gold ring have been found. The two bronze rings were deposited together in a MH III-LH I infant burial (1970-7). Their exact position in relation to the skeleton is unknown, as they were recovered together with the grave pebble fill.

The gold ring was also found in a MH III-LH I burial of a YA, possibly a male (1971-10) (Fig. 156). It could have been an ear-ring as it was found close to the skull.

Rings have also been found at Kastraki and Lerna. Gold rings, however, are missing from both sites. The two bronze rings from Kastraki date from the MH I period.

Sets of objects

The gold ring was found together with a bronze knife. No other objects were found together with the bronze rings.

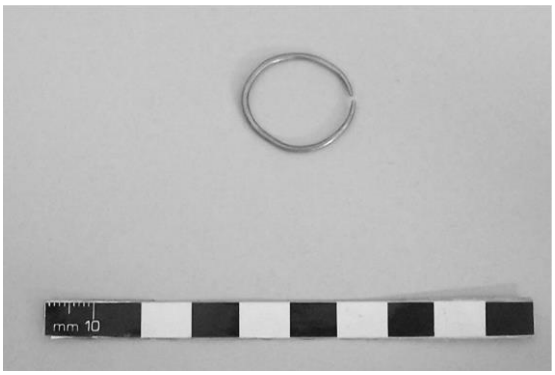

Fig. 156: gold ring MN30279 from grave 1971-10 (photo by the author).

ii. Other

A gold band, usually referred as a diadem, was found in an adult burial (1970-12) of uncertain sex (Fig. 157). The band was found by sieving the fill of the grave, which was excavated from under the water table. However, it is suggested that the band was placed somewhere near the head. The band was worn, broken and repaired in antiquity, which means that is was used for some time before it was deposited in the grave. Dietz places the grave in the MH II late period, although the C^{14} analysis showed that an MH III dating cannot be excluded.

This was the second golden object found in an adult grave at the EC. At Lerna a similar band, but made of silver, has been found in a LH I infant burial.

Sets of objects

No pattern emerges.

Fig. 157: gold band MN32019 from grave 1970-12 (photo by the author).

To conclude, although few ornaments have been found, the EC stands out for the presence of golden ornaments. Finally, at the EC age differentiation was noticed, as ornaments have only been found in adult graves.

c. Pins and whorls

Pins or whorls which could have been used as tools or ornaments, have not been found in the East Cemetery. On the other hand, this was a very common category of finds both at Kastraki and Lerna. At Barbouna one terracotta whorl has been found.

d. Weapons

A bronze dagger with silver nails and a pommel of white limestone was the only weapon found at the EC (Fig. 158). The dagger was placed in the grave of an adult male individual. This was the large LH I cist grave (1971-3), contemporary with the graves of the Circle B in Mycenae. The dagger was found intact in the central-east area of the grave. It was placed under a cup, but its position in relation to the skeleton is unknown. This is the only dagger found at Asine. A bronze dagger was also found in a LH I adult grave from Myloi, while a bronze sword was placed in a MH III child burial in 'Tumulus' E at Argos (Protonotariou-Deilaki 1980). Further, a bronze dagger was found in an undated adult grave in Prosymna (Blegen 1937).

The bronze knife from the MH III-LH I grave 1971-10 may have been used as a weapon or a tool (see above). In any case, it is important that both the dagger and the knife were deposited in adult male burials.

Weapons have been related mainly with male adults at Kastraki and Lerna as well. At both sites however, we are mainly dealing with simple stone implements, while daggers are missing. Bronze daggers and swords are only found in late extramural cemeteries, usually associated with adult burials – in all case, when sex in known, these are male.

Sets of objects

In the grave with the bronze dagger 16 vessels were deposited.

Fig. 158: bronze dagger MN27538 and limestone pommel MN30146 from grave 1971-3 (photo by the author).

e. Miscellaneous objects

An iron nail was found in grave 1970-12, where the gold band was also found (Fig. 159). The grave reveals no signs of disturbance in antiquity, thus the iron nail should be dated in the MH II-III period.

Fig. 159: iron nail F70-12 from grave 1970-12 (photo by the author).

Let me repeat the basic observations on non-pottery objects. Only few graves in the EC contained non-pottery finds. Ornaments were the most common category, while a bronze knife and a dagger have also been found. Generally, the repertoire of objects was restricted. However, the few objects found were made only of bronze and gold,

thus they were all of precious materials. Ornaments were found in adults and sub-adult burials, while weapons were only found in adult graves. All four graves containing non-pottery objects date from the MH III-LH I period.

f. Organic remains

The only organic remains retrieved from the graves were animal bones, found inside one grave. In three more graves animal bones were found in the grave fill, where also sherds have been found. Shells on the other hand are totally missing from the EC.

a. Animal bones

Animal bones were deposited near the feet of a PA male individual (1972-7). The grave dates generally from the MH period. We do not have information about the animal species or whether a whole skeleton or part was found.

Additionally, animal bones have been found in the fills of three graves (1971-3, 1971-12, 1971-14). Graves 1971-12 and 1971-14 were found very close to each other and they both date from the late part of the MH II period. A child (1971-12) and an adult (1971-14) were buried in these two graves. The finding of those bones is probably not accidental, as the area where the cemetery was established was uninhabited. In any case further analysis of the animal bones is required before we can reach any conclusions.

Finally, animal bones together with broken pottery were found in the fill of the huge cist 1971-3 dating from LH I period. Similar assemblages have been recovered from the shafts of shaft graves, also in Barbouna, pointing to recurrent practice taking place at the beginning of the LH period. In all cases animal bones are interpreted as the left-overs of funerary meals (Graziadio 1988, 346; Wright 2004a; Lindblom 2007, 120-123).

Although based on limited and insufficiently reported data, it seems that the placement of animal parts inside the graves or in the fills was quite common in the EC, mostly during the later period. Animal bones were also recorded from few graves in the Argos ‘tumuli’, while no animal bones are reported from Myloi.

2.9 EAST CEMETERY: CONCLUDING DISCUSSION

In this section social structure and change through time, as much as they were revealed from the burial record of the EC will be discussed. Age, gender and wealth differentiation will be analysed and the importance of kinship and common descent will be examined. When possible, change through time will be also studied.

Overall, age differentiation was marked, as is shown from the exclusion of certain age categories but also from the grave types used and from the offerings accompanying the dead. On the other hand, only hints of gender differentiation were noticed, based on data from the sexed skeletons. Further, elaboration differences between the burials exist and they were shown in grave types and offerings. Common descent was emphasized not only by the formation of a conspicuous and distinct form of a cemetery, but also by the common practices followed. Finally, despite the small sample size, change through time was observed in different aspects of the mortuary record.

2.9.1 Age differentiation

Age differentiation in the EC was marked and was expressed in the demographic composition of the assemblage, in the spatial arrangement of the graves, in the grave types used and in the grave offerings.

Overall, mainly adults have been buried at the EC, while infants and children are underrepresented (Ingvarsson-Sundström in Voutsaki et al. 2007, 70-76). On the other hand, newborns and OA are missing, while a neonate was only once buried together with an adult. It should be stressed, however, that only a part of the cemetery has been excavated and the possibility cannot to excluded that more sub-adults, among which also neonates, were buried in the unexcavated part. In any case, it seems that in Asine an extramural spatial setting was considered more appropriate for adults and some older children. At Kastraki a tendency was noticed to bury adults at the periphery of the settlement already from the earlier phases.

Next to differential inclusion of adults and sub-adults in the cemetery, age differentiation was also expressed in the spatial arrangement of the graves, in the grave types used and in the deposition of offerings.

If we begin from the spatial context, we observe that single sub-adult burials cluster in one area. It seems thus that spatial differentiation along age lines observed at Kastraki

was also followed here. If we turn to grave types, a dichotomy exists in the use of large burial pithoi exclusively for adults and juveniles. On the other hand, while mixed type cists were used for adults and sub-adults, all the single sub-adult burials were placed in this cist type. Sub-adults (a neonate and an infant) were only buried in other cist types together with an adult.

Finally, if we turn to grave finds age differentiation is clear; pottery was only deposited in adult burials and the same holds true for golden objects. In sub-adult graves ornaments have been found but none was made from gold.

To conclude, age was a definitive criterion not only for inclusion in the EC, but also for some aspects of the burial treatment. Different grave types were used for different age segments of the population and different sets of objects were placed in their graves. Age dichotomies at the EC are clearer than in the settlement context, although other aspects of personal identity should be examined before we reach final conclusions. Let us first examine gender.

2.9.2 Gender differentiation

Gender differentiation at the EC was not so marked as age differentiation. Despite the small number of sexed skeletons, no gender category was excluded as the same number of males and females were buried at the cemetery (Ingvarsson-Sundström in Voutsaki et al. 2007, 70-76). Nevertheless, some differentiation was expressed mainly in the grave finds. In addition, grave type may give some hints of differentiation, although the number of sexed skeletons is too small. Finally, clear differentiation between men and women regarding health status and diet was not apparent. Females seem to have had more animal protein in their diet than males (Ingvarsson-Sundström et al. 2009, 7), however, the statistical value of differences between the sexes is insignificant.

Concerning grave types, two of the four adults-juveniles buried in the early pithoi were females. However, the remaining two skeletons could not be sexed and therefore clear conclusions cannot be reached. Sexed skeletons buried in pithoi are also missing from the Argos ‘tumuli’, which could be used as comparative material.

During the later part of the cemetery use a male was buried in the largest and well-furnished cist. Again however, we are dealing with a single case.

Some evidence of gender differentiation is also given by the large stones placed intentionally in different places inside male burials. However, those stones were not found in every male burial (they were found in three graves).
Finally, a clearer pattern emerges from the deposition of weapons and of objects that could have been used as weapons and/or tools. A dagger and a knife have both been found in male burials dating from MH III-LH I period.

To sum up, gender was not a criterion for inclusion in the cemetery. Based on a small sample, some indications of gender differentiation were noticed but usually clear divisions are missing. We can however propose that during the later phases gender differences became more emphasized in the mortuary sphere. During this period, weapons were placed in male graves and at the same time the most elaborate grave of the cemetery belongs to a male. The correlation between males and elaborate burials during the late part of the period under study was also noticed at Barbouna. Next, elaboration and wealth as means of differentiation will be examined.

2.9.3 Elaboration, 'wealth', status

Differentiation between individuals, expressed through grave elaboration, was present at the EC. Those differences were shown in grave construction and in the presence of grave goods. Furthermore, subtle diet differentiation was obtained, while the observation of differences on burial treatment was hampered by the high water level.
If we first examine grave construction, three graves stand out. These were the two MH I-II burial pithoi and the LH I large cist. During the early phases of the cemetery use the existence of large pithoi for double adult burials is exceptional (Ingvarsson-Sundström et al. 2013, 153). During this period, adults were mainly placed in pits, while some cists were also used in different burial grounds in the Argolid. In the EC a cist sub-adult grave probably also dates from the early phases. The use of large pithoi as burial containers of four individuals, all adults and juveniles, clearly separates this group of people from the rest. While these were the earliest securely dated graves of the cemetery, they were not placed in or upon the tumulus, though they disturbed the reconstructed perivolos of the tumulus.
During the later part of the cemetery use cists and a pit were placed in the EC. One of the cists however, clearly stands out because of its dimensions. This was a cist measuring 2.00m x 1.00m x 0.50m and constructed of vertically placed stone slabs. Not

only its size but also the mode of construction was exceptional for the EC, as mainly built cists were used. The grave was placed outside the tumulus, close to the earlier pithos burials.

If we turn to grave goods, one of the pithos burials and the large cist are clearly different. To start with, four vessels were placed in front of the mouth of the pithos. Finding more than one or two vessels in the early MH period is exceptional (Ingvarsson-Sundström et al. 2013, 153). On the other hand, the largest amount of pottery, 16 vessels, together with a bronze dagger was placed in the large cist. This was the largest amount of pottery found in all graves at Asine. We see therefore that these two graves stand out in different ways.

Two more late graves stand out because golden ornaments were found in them. These were an adult cist, where a gold diadem was found and a YA possibly male pit grave, where a golden ring together with a bronze knife and a vessel were placed. Here grave elaboration and offerings do not correlate. Finding golden objects in MH-LH I graves is exceptional and it puts a special emphasis on the associated graves. Golden ornaments in the Argolid have been found in extramural burial places.[163] It is therefore not surprising that they are missing from Kastraki and Barbouna. Nevertheless, at the EC there is no correlation between golden ornaments and elaborate grave construction, as one of them was placed in a pit and the second in a moderate cist.

Nordquist (2002) has supported that the tumulus cemetery was exclusively used as burial ground of a local emerging elite group, who stressed its status by excluding others. This hypothesis however cannot stand true especially for the early part of the MH period, when evidence of wealth differences is minimal both from the burials and the houses. Of course the possibility always exists that the differentiation was not based on wealth, but on kinship – e.g. with one lineage always having more status.

Even during the later part of the period, when more instances of differentiation start to emerge, it is difficult to assign the EC to local elite, as many unfurnished graves exist and relatively rich burials in small shaft graves were also placed in Barbouna. If we turn to houses evidence of differentiation between the houses in terms of content and wealth is minimal. However, there are substantial differences in size and complexity. It could be suggested that, during the MH III/LH I-LH I period some of the more

[163] 'Tumulus E' at Argos, Prehistoric Cemetery at Mycenae, Mycenae Shaft Graves. Although the burial context in the Prehistoric Cemetery of Mycenae is problematic.

prosperous members of the community buried their dead in the EC, but not exclusively in it.

Finally, concerning differences in diet the highest nitrogen values, showing consumption of animal products, belong to the female and the juvenile buried in pithos 1971-15 (Ingvarsson-Sundström et al. 2013, 154). It seems thus that this burial stands out in many different ways. In general, however, the highest nitrogen values were found in burials lacking offerings. Again correlation between elaborate burials and heavier consumption of animal products do not correlate.

To conclude, wealth differences between the graves at the EC do exist. Those differences were present already from the MH I-II period but they became more emphasized during the MH III-LH I period. The emphasis was shown by the deposition of more and more variable objects in some of the graves, among which golden ornaments. However, the existence of precious objects does not always correlate with elaborate grave construction, and not all graves were furnished. The burial pattern reveals a rather fluid situation, arising perhaps from continuous negotiation between social groups. It can be suggested that some groups or individuals were expressing their claims on status, trying to create it through burial elaboration, rather than legitimate their already existing status (Milka in Voutsaki et al. 2007, 80; Ingvarsson-Sundström et al. 2013, 157-8; Voutsaki et al. 2011, 455).

Moreover, the fact that many unfurnished graves also exist indicates that wealth was not a decisive criterion for inclusion in the cemetery. The connection between the tumulus and 'rich' burials is not absolute. Richer and poorer graves co-exist indicating that another aspect of the personal identity of the deceased was more significant for the inclusion in the cemetery. It is time to examine another aspect of personal identities: Kinship and descent.

2.9.4 Kinship and descent

Kin and family relations and common descent were expressed in different ways in the sites examined. The EC is a special case so far as the cemetery was organized around a tumulus. The construction of tumuli and of stone enclosures clearly emphasizes the unity of the group buried in the cemetery (Ingvarsson-Sundström et al. 2013, 157-8; Voutsaki et al. 2011, 455; Whittaker 2014, 92-98). At the same time, entrance to

cemetery is restricted and a clear physical boundary between the living and the dead or between the people who belong to this group and the rest of the community is created. It should be noted however that the earlier graves of the cemetery were not placed in or upon the tumulus and they did not even respect the reconstructed perivolos around it. Unless the proposed reconstructed enclosure is not accurate, we can suggest that the tumulus was first constructed for purposes other than burial and at some later time, though not much later, it was turned to a cemetery. Whittaker has recently suggested that some tumuli in the southern Greece may not originally have been constructed for burial use, as the graves found in them are later (Whittaker 2014, 102-3). Nevertheless, only hypotheses about the initial use of the Tumulus IQ can be made as its centre was disturbed and possible evidence for other activities are missing.

What is more important is that a conspicuous form of an extramural cemetery was created already from the beginning of the MH period. The early dating of the Tumulus IQ in Asine, as well as of Tumulus A in Argos, does not allow us to speak of a practice departing from traditional MH mortuary practices (contra Voutsaki et al. 2011, 455). Rather, tumuli cemeteries must be seen as one of the different contexts chosen for burials already from the beginning of the MH period.

Moreover, as we have seen, the tumuli cannot be directly connected with elite groups, as neither the mortuary data nor the settlement data support the existence of elites, at least at the early part of the MH period, when the tumuli were erected. During this time differentiation between the burials and between the houses was minimal (Voutsaki 2010c; Wiersma 2014).

On the other hand, the early association of the EC with two exceptional burials, the double pithos burials, makes it possible that people of different origin were buried there emphasizing their common descent. Actually, it can be proposed that the settlement was not considered an appropriate place for those different origin groups or individuals, who were buried outside it. Later, either the newcomers adopted the local tradition of cist graves, or other local groups started burying their dead in the cemetery.

Moreover, the creation of an extramural tumulus cemetery reflects a different mortuary ideology, where separation of the two realms, the living and the dead, is clearly manifested. It is more plausible that non-local groups were agents of a different ideology about death and burial. Other researchers (Nordquist 2002, 25) have already proposed that women coming to the Argolid as brides were buried in pithos burials in formal cemeteries.

Although this suggestion is difficult to prove, much evidence exist that common descent was underlined in the EC. Overall, a high degree of uniformity exists, as similar practices are followed. All burials were primary inhumations placed in contracted position, almost exclusively in cist graves. Moreover, a relatively high proportion of double burials exist. Individuals buried in double burials may have been kin or family related, although this hypothesis cannot be proved.

On the other hand, practices of remembering the dead, although not by themselves a decisive argument for detecting kinship, reinforce the hypothesis of kin relations and common descent. Although grave markers are missing, the possibility cannot be excluded that these were made of perishable materials. In any case, it can be proposed that the cemetery as a whole was more important than the individual graves. The tumulus cemetery was a visible landmark in the landscape (Whittaker 2014, 98) clearly marking the place of the burials. The construction of tumuli is the best indication that extramural burials were supposed to be seen, re-visited and finally remembered. Indeed, the cemetery covers a wide time span from the MH I-II period, when the tumulus was constructed and the first burials were opened, until the LH II period, when the cemetery is visited for the last time. During this long period the cemetery was periodically re-visited and it must have been a point of reference for the inhabitants of the MH and early LH settlements.

Moreover, the high percentage of bone fragments belonging to individuals other than the main burial may indicate that the graves have been re-opened and re-used. In that case kin or family ties may have been more emphasized than we think. However, clear evidence of secondary burials is missing.

To conclude, the EC was an early, new cemetery type initially associated with exceptional burials. The novel cemetery and grave form and the different burial ideology that they reflect, makes it possible that people of different origin were buried there, at least at the beginning, emphasizing their common descent and their difference from the rest of the population. On the contrary, as we have seen (see chapter 2.5.4) the emphasis in Kastraki seems to have been placed less on descent and continuity within the family and more on social memory, i.e. memory of the community as a whole or at least of wider kin groups.

2.9.5 Change through time

The study of change through time in the EC faces two problems; the uncertain date of many graves and the small sample size. However, change has been noticed in the spatial arrangement of the graves and in the demographic composition of the assemblage, in the grave types used and in the offerings deposited in them and in the mode of disposal of the dead.

i. Spatial arrangement of the graves

The first burials dating to the MH I-II period were placed outside the tumulus, close to each other, possibly disturbing its outer perivolos. During the MH I-II or MH III period the first grave was cut into the tumulus, which was only sporadically used for burials until the LH I period. The vast majority of the graves were opened in the area around the tumulus. The latest graves date to the LH II period (Voutsaki et al. 2010).

The earlier burials of the cemetery belonged to adults-juveniles, while later and throughout the cemetery use adults predominate but some infants and children were also buried there. A neonate burial was placed only during the MH III-LH I period.

ii. Grave types

Change has also been noted in the grave types used in the cemetery. During the MH I-II period pithos burials and possibly cists were used. After MH II pithos burials ceased and cists of different types were constructed. The larger cist dates to the LH I period. Moreover, if we examine their mode of construction cists built of stones placed in horizontal courses and mixed type cists date to the MH II-III until the LH II period, while cists with walls formed of vertically placed stone slabs are later dating to the MH III-LH II period.

Finally, the only pit dates to the MH III-LH I period.

The brick cist is undated, so we cannot say whether it was an early or a late grave type. Thus, adult pithos burials are an early burial type restricted in the MH I-II period. Later, cists were almost exclusively used. After the MH III a new cist type was introduced and the largest cist was constructed.

iii. Pottery

In general, a relatively small number of graves (4 graves) in the EC contained pottery. Only one of them dates to the MH I-II period, while the remaining date to the MH III-

LH I. Moreover, the largest quantity of vessels was placed in a LH I grave. Thus, during the later phase of the cemetery a general increase in graves containing pottery and also in the amount of pottery found in them was noticed. Furthermore, during the same period more complete vessels of better quality were placed in the graves.

iv. Other finds

Four graves from the EC contained non-pottery finds. They all date to the MH III-LH I.

v. Mode of disposal

Finally, concerning the mode of disposal of the dead great homogeneity is observed. Overall, single, primary, contracted inhumations predominate through time. However, a couple of double burials occurred. Change through time has been observed in the form of those double burials in the EC. The double adult pithoi burials were early (MH I-II), while double cist burials, where an adult and a sub-adult were buried, date to the MH III until the LH II period.

Typical secondary burials or clear evidence for later reopening of the graves are missing. However, the existence of disarticulated bones from individuals other than the main burial may indicate reopening of some graves. The graves where extra bones have been found date to the MH II-MH III and the MH III-LH I periods.

2.4 BARBOUNA: THE CEMETERY

2.4.1 Introduction

The Barbouna Hill is located opposite, i.e. to the NW, of the Kastraki promontory. It consists of a lower, rather flat part and a higher terraced part. The flat part slopes evenly to the SE (Hägg I. 1973, 24). The Levendis Sector[164], where the MH remains were mainly found, is situated at SE slope of the hill and was first excavated during 1970-74 (Hägg I. 1973; Hägg I. & Hägg R. 1975; Aupert 1975, 617; Catling 1975, 10). Work was resumed for a final season in 1989 (Hägg R. & Nordquist 1992).

In total, about 125 m2 were excavated (Hägg I. 1973, 24). The area was divided in a series of trenches and sub-areas: the Central Trench or Area 1 was situated at SE part of Levendis Sector; Trenches A, B, C, D, E, F, G, H and I were opened in various areas of the sector; the Deep Trench was excavated at a later date in the area of the Central Trench (Fig. 160) Finally, North, East, South and West extensions were added to the Central Trench (Hägg I. 1973, 24; Hägg & Nordquist 1992) (Fig. 161). All the different types of constructions uncovered during the excavations were first successively numbered (e.g. A 72.19). Those which turned out to be tombs were then re-numbered, e.g. B1, B2 (Hägg I. 1973, 22). Unfortunately, a general ground plan showing the relation between terraces, slopes, trenches, burials and houses is missing.

The Barbouna Hill was occupied during the later part of the MH period.[165] The settlement of Kastraki expanded during the MH III period in this area (Nordquist 1987, 85). Thus, Barbouna and Kastraki were actually different parts of the same settlement and their main difference is chronological. In both cases burials were opened in a settlement context.

In total, 16 graves have been excavated at Barbouna.[166] However, only two of them (B6, B7) have been fully published (Hägg I. 1973, 58-68). Information on the remaining are based on published reports (Nordquist 1987, 98-99; Hägg & Nordquist 1992, 63-64) and on un-published manuscripts, kindly provided by G. C. Nordquist (n.b. a, b, c).[167] However, there are no complete ground plans showing houses and graves.

---

[164] Levendis Sector consists of one big plot of land owned by Mr. M. Levendis and two small plots owned by Mr. P. Koulmas and Mr. I. Kasimatis (Hägg I. 1973, 24).

[165] Possible earlier MH occupation of the area cannot be excluded, as early MH material together with a part of a wall has been found (Nordquist 1987, 85).

[166] More were located in the ground surface but they were never excavated (Nordquist 1987, 98).

[167] I am extremely grateful to G. C. Nordquist for providing me information in advance of publication.

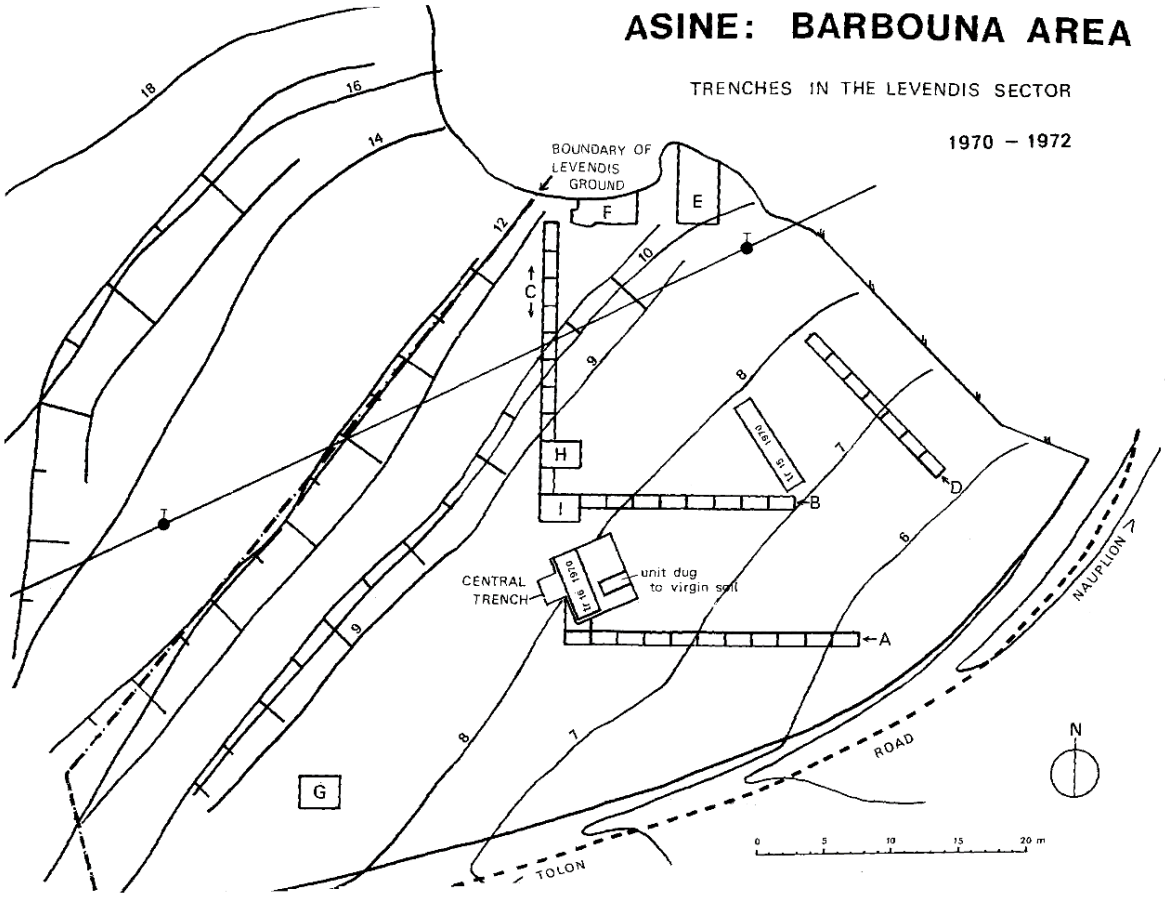

Fig. 160: trenches at the Levendis Sector (from Hägg I. & Hägg R. 1973, plate I).

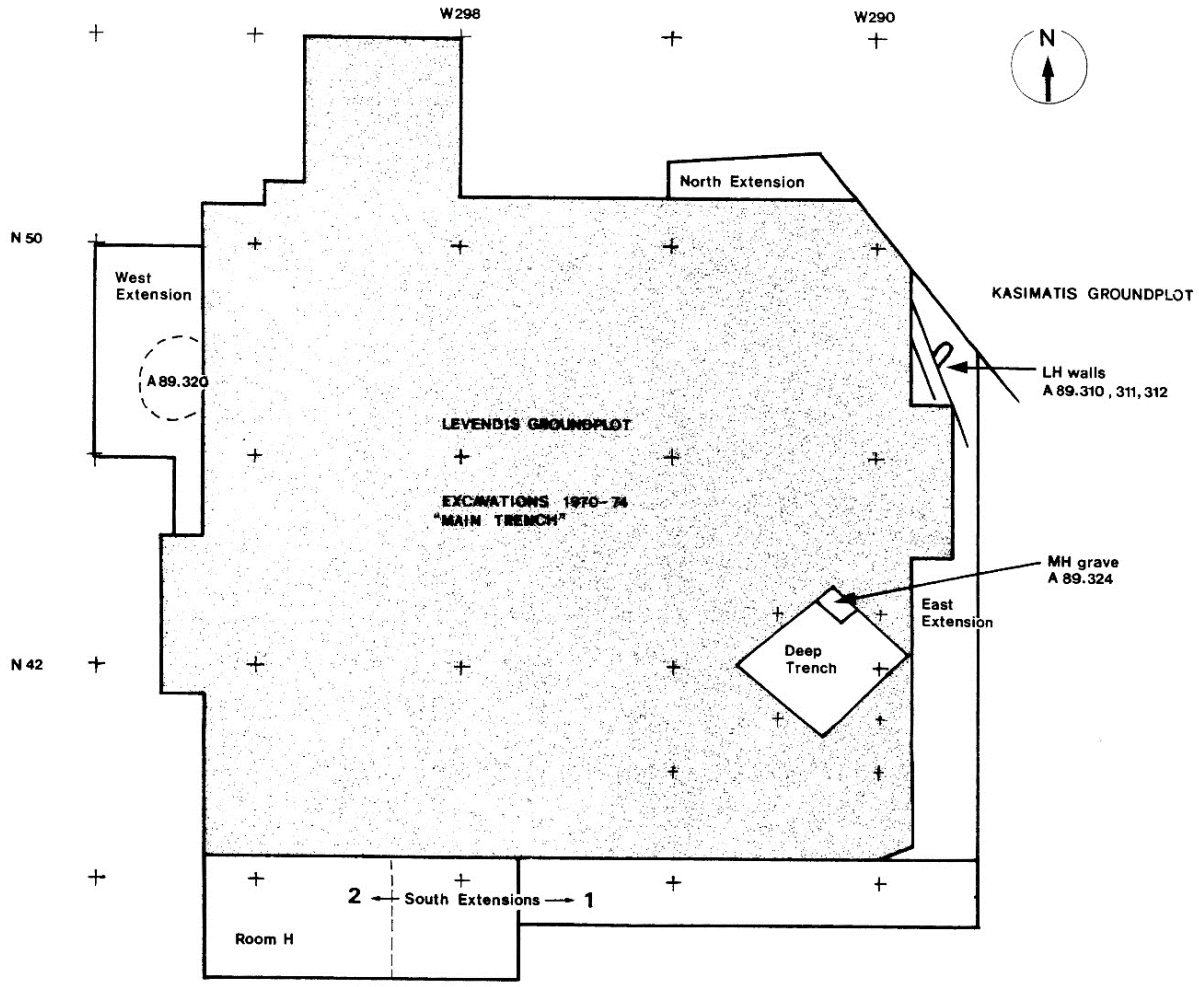

Fig. 161: Central Trench of Leventis Sector and extensions (from Hägg and Nordquist, 1992, fig. 1).

2.10.2 Dating

A relative dating is available for all the graves from Barbouna (Nordquist 1987, List of graves; Hägg & Nordquist 1992, 63-64). The earliest of them (B11) dates to the transitional MH II/III period. The burial use of the hill became more intense during the MH III period and continued into the LH I period (Table 128).

Thus, from the transitional MH II/III period until the transitional MH III/LH I period all three burial places, namely Kastraki, Barbouna and EC, were in use at Asine. During the LH I period graves were still placed at Barbouna and the EC, but not at Kastraki.

Date	No of graves
MH II/III	1
MH III	9
MH III/LH I-LH I	6

Table 128: number of graves in each period

2.10.3 Cemetery location

The MH and LH I graves from Barbouna are usually treated as part of an extramural cemetery, established upon disused houses (Nordquist 1987, 98-101; 2002a). However, this pattern holds true only for some of the latest burials, while others were contemporary with the houses. Overall, the mortuary use of space at Barbouna resembles the patterns revealed from Kastraki and from the late phases at Lerna. Some graves were placed in terraces above the houses, in areas reserved for burial use, others were possibly placed inside the houses while the latter were still in use, and others were opened upon ruined houses. In all cases, however, a domestic rather than an extramural context was chosen.

Here, based on the available information and plans, the different burial places are described and special emphasis is given in the relation between houses and graves.

A. Terraces

The terraces above the settlement were exclusively used as burial place (Trenches E, F). The earlier grave (B11) dates to the transitional MH II/III period, while the remaining date to the MH III period. The first burial placed here was that of an adult, while later adult and sub-adult burials were placed in the area above the houses.

The first terrace (Table 129, Fig. 162), where graves B6, B7, B11, B12 and B15 have been found, was bordered to the NW by a wall, which may have been related to the graves creating a stone enclosure. The wall was visible on the ground at the time of the excavation but it was not further examined nor described in the publication (Hägg I. 1973, 24, 81).[168] Moreover, the graves at this area were connected by a rough, floor-like stone-packing (Hägg I. 1973, 27; Nordquist 1987, 99) (Fig. 163). The existence of a stone pavement between the graves and of the possible enclosure wall shows the existence of a well organised burial place. A more extensive burial ground may have

[168] According to Nordquist (1987, fig. 104), however, the wall dates to the LH period.

existed here, as the area was not fully excavated (Nordquist 1987, 101). A similar stone packing around some MH III graves have also been noticed at Lerna, at Area D (chapter 1.2.3).

The first grave of the terrace was earlier than the houses lower on the Barbouna slope, but it was contemporary with some of the Kastraki houses. The remaining graves, however, were contemporary with the Barbouna houses and with some of the Kastraki houses. The graves in this terrace, although placed at some distance from the houses, were still closely related with the domestic sphere. The same pattern was observed at Kastraki, where some graves were placed on the Acropolis already from the early part of the MH period (see chapter 2.2.3).

To conclude, at Barbouna adult and sub-adult graves were placed at the periphery of the settlement in a well organised burial ground. The use of this burial ground was for most of the time synchronous with the use of houses (Nordquist 1987, 98).

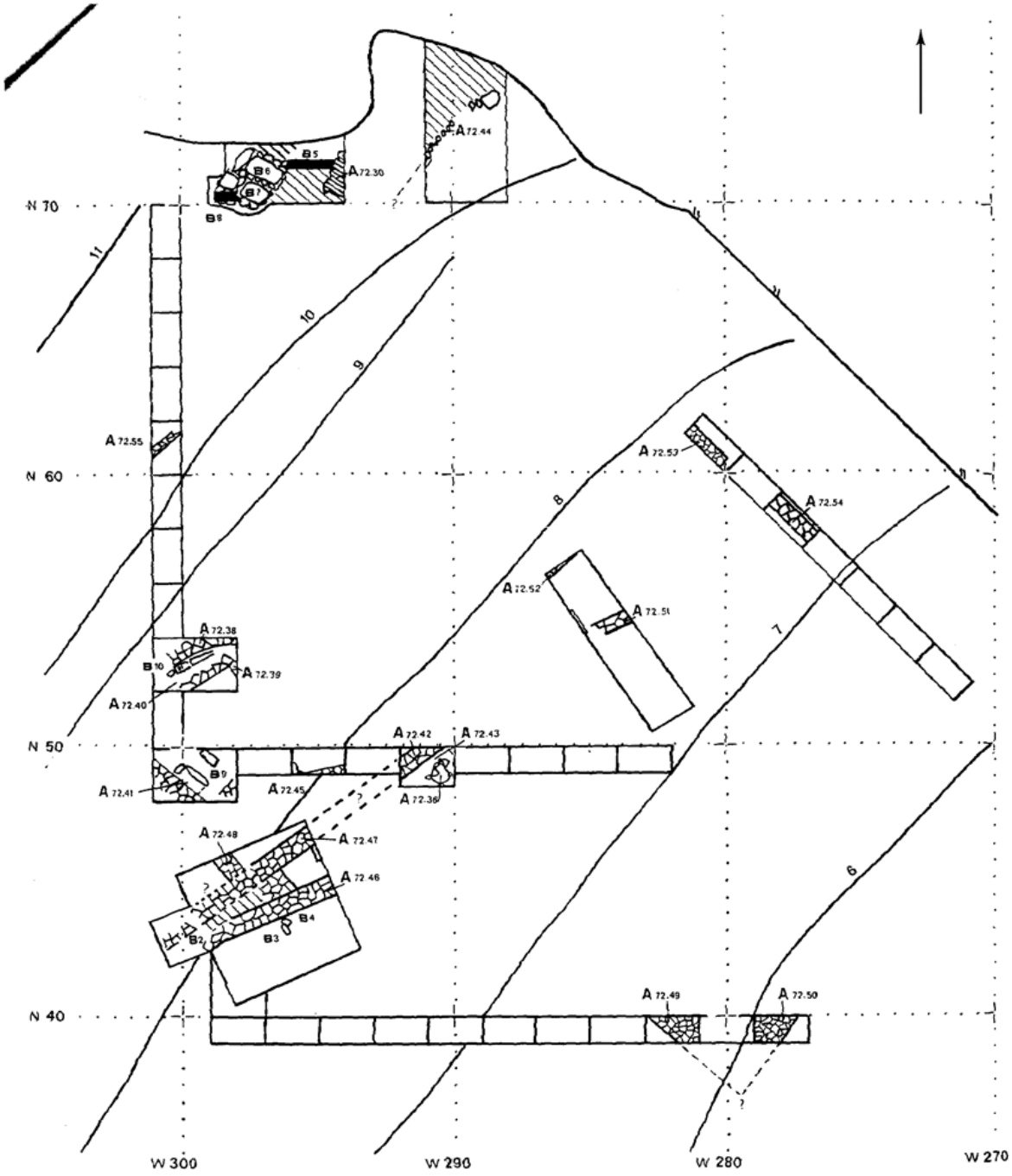

Fig. 162: graves in the 1st terrace (not all graves are shown) (from Hägg I. & Hägg R. 1973, plate I).

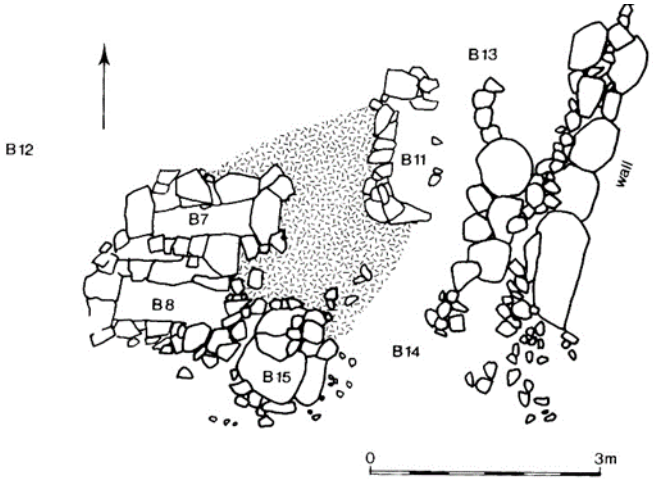

Fig. 163: MH graves B7, B8, B11, B15 on the 1st terrace with a stone and gravel paving connecting them (from Nordquist 1987, Fig.104).

B. Lower slopes

Remains of two MH III houses have been found lower in the Barbouna slope (Fig. 164). Building 1 (Fig. 165) (Koulmas property-1974) was occupied during the MH IIIA period. However, only a small part of one room of the house has been excavated (Nordquist 1985, 19-20; 1987, 85; Voutsaki 2010c, 771-772; Wiersma 2013, 125, 476). At least two graves (Table 129), grave Alfa and grave Beta, were opened during the MH III/LH I or LH I period in the area occupied by Building 1, when the house was destroyed probably by an earthquake, which caused a fire (Nordquist 1987, 99).[169] The two graves possibly belonged to an infant and an adult.[170] More graves, however, may have been related with the unexcavated part of the house.

Building 2 (W side of Levendis property-Central trench) (Fig. 166) was also in use during the MH IIIA period and, as Building 1, was destroyed probably by an earthquake, which caused a fire. The house consisted of at least two rooms, Room N and Room K, but it was not completely excavated (Nordquist 1985, 21-25; 1987, 85-6; Voutsaki 2010c, 771-772; Wiersma 2013, 125, 476).

Some MH III neonate graves related with Room N may belong to the time the house was occupied or were later than it (Table 129) (Nordquist 1987, 85, 98). Two MH IIIB-LH IA adult shaft graves (B30, B32-B34) on the other hand, were opened upon the

[169] The relation of grave A 89.324 with the remains of Building 1 is unclear. The grave was found in the Deep trench during an attempt to find the west part of the house, which was overbuilt by Mycenaean structures (Nordquist 1991, 31).
[170] The two skeletons have not been studied by an anthropologist.

ruins of the same room, when the house went out of use (Nordquist 1985, 25-27). The area was not used by the builders of the Mycenaean houses, dating from the LH IIA period onwards. Nordquist believes that the MH house, and more probably the graves related to it, were considered in some way taboo by later settlers (Nordquist 1985, 21). Thus, the lower part of the MH settlement at Barbouna was used for burials mainly after the houses were abandoned. The graves were opened upon the ruins of earlier houses, a practice already noticed at Kastraki and Lerna. Some neonate burials, however, may have been placed inside Building 2, while the house was still in use.

We see therefore that different spatial contexts were used at Barbouna for the placing of the graves:

- Graves were opened on the terraces above the houses.
- Some neonate graves may have been opened inside houses still in use.
- Graves were opened upon abandoned houses.

Such a spatial pattern is similar to the one observed at Kastraki and demonstrates that the graves at Barbouna are better described as graves placed in a domestic context rather than as extramural cemetery (contra Nordquist 1987). Once more the categories intramural and extramural are neither sufficient nor accurate to describe the location of the graves.

Area	**Graves**	**Grave dating**	**Associated architecture**
1st terrace above the houses	B6, B7, B11, B12, B15	MH II/III-MH III	Stone pavement and wall (enclosure?)
Central trench, Levendis plot	B18, B28, B29, B30, B32, B33, B34, B35	MH III-LH I	Building 2-MH IIIA
Koulmas plot	Alpha, Beta, A 89.324(?)	MH III/LH I?	Building 1-MH IIIA

Table 129: graves excavated in each area

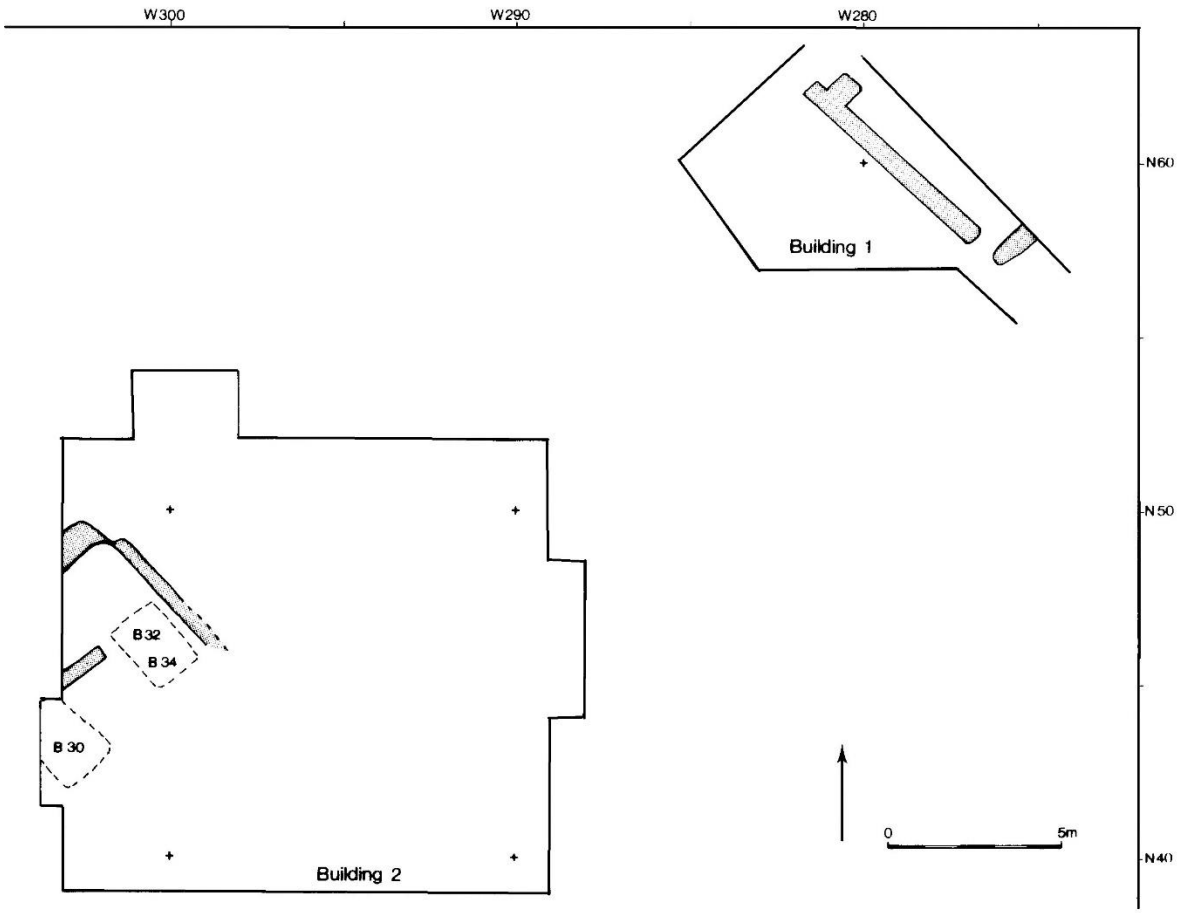

Fig. 164: Buildings 1 and 2 (from Nordquist 1987, Fig.16)

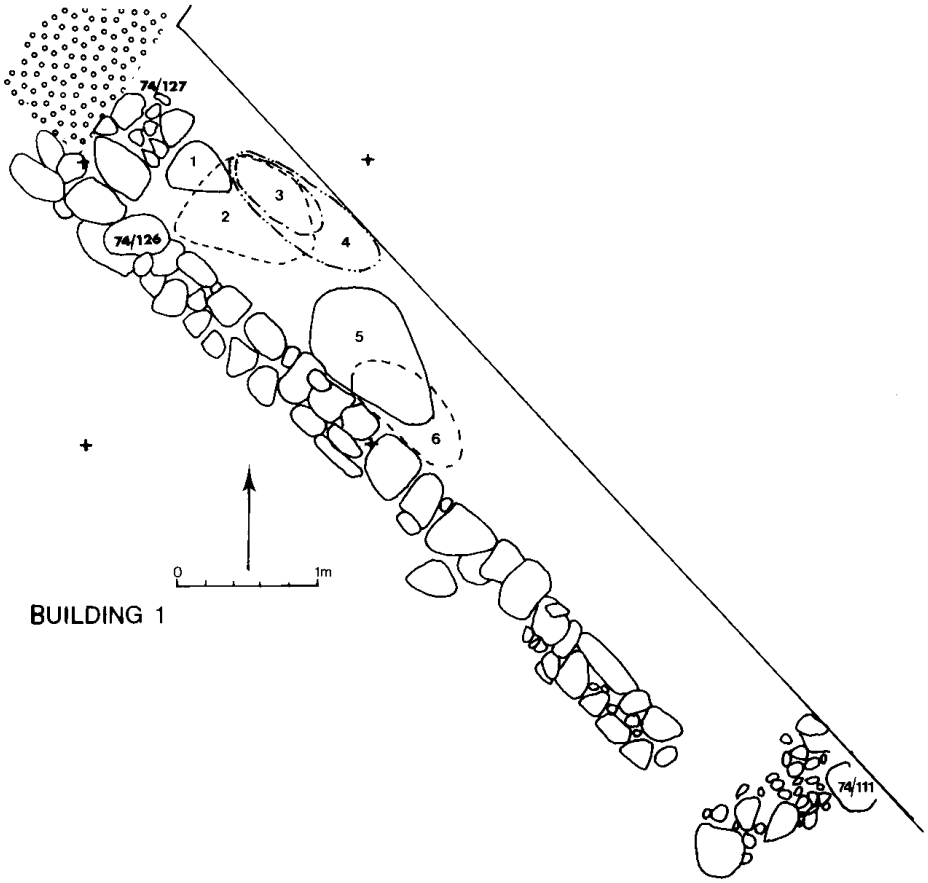

Fig. 165: Building 1 (from Nordquist 1987, fig. 85).

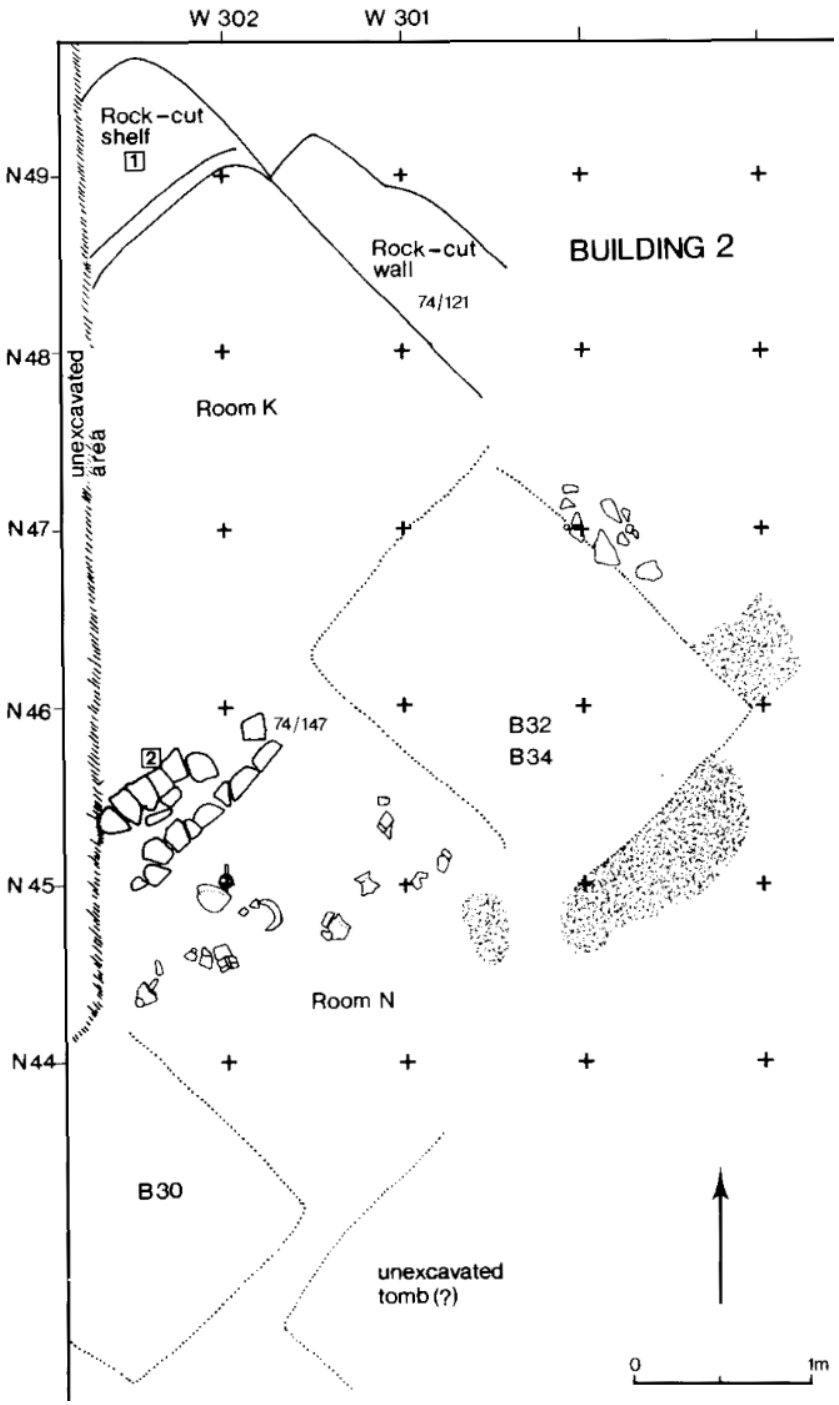

Fig. 166: Building 2 with some of the related graves (from Nordquist 1987, fig. 87).

2.10.4 Spatial organization

As we have already seen in other settlements, the spatial organization of graves placed inside the domestic area is closely related with the organization of the settlement. Grave orientation and grave groups are the two parameters that will be analysed here.

a. Grave orientation

The main question to be addressed here is whether graves were aligned to contemporary or previously used house walls in the settlement, or to nearby houses on the terraces above the settlement. Grave orientation will be later used to test the coherence of the burial groups.

Overall, the graves at Barbouna were orientated towards the NE-SW (Nordquist 1987, 99) or the NW-SE axis and only exceptionally towards the N-S axis (B15, A89.324)[171] (Chart 129). Grave orientation was thus clearly influenced by the sloping of the hill and only occasionally by the relation to houses. The same parameters influenced grave orientation at Kastraki, while at Lerna and Aspis most of the graves were aligned to nearby house walls.

No chronological pattern concerning grave orientation emerges. It should be kept in mind, however, that the burial use of the site was relatively short and that a small number of graves have been excavated so far. Furthermore, age and gender does not seem to influence grave orientation. However, the small sample size and the unknown orientation of three pit graves make our observations tentative.

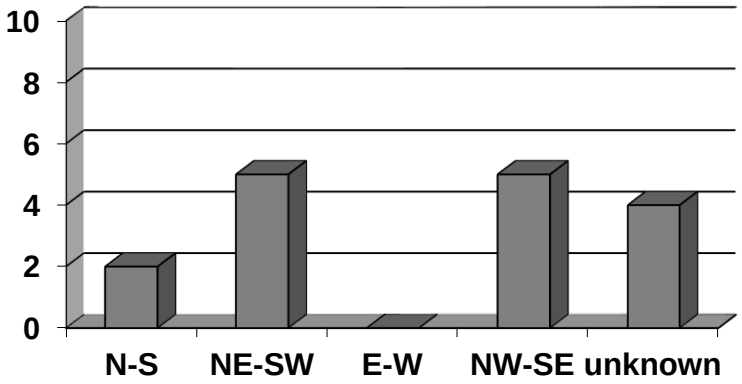

Chart 129: frequency of each grave orientation

[171] The orientation of three pit graves (B12, B33, B35) is unknown.

b. Burial groups

As we have seen, the graves found at Barbouna are divided into two broad groups: graves found in the terrace above the settlement and graves found inside the settlement. These two general groups will be followed in the analysis here (Table 130). Although most of the graves found in the settlement are related with one of the two houses excavated there, the houses were not completely uncovered and the area in-between them was not examined. In fact, the finds, houses and graves, derive from individual trenches opened in different areas of private plots, with a lot of unexcavated space between them (Fig. 167). Therefore, the spatial analysis of grave clusters in the way it was done for Lerna, Kastraki and Aspis was not possible here, as the observed groupings were mostly due to chance.

The comparison then will be made between the wider areas chosen for the placement of the graves. In the settlement, the relation of the graves with specific houses will be mentioned but not further analysed.

Group I

Group I is situated on the 1st terrace above the houses. It consists of five graves.[172] More graves, however, might have existed here. Most of the graves excavated so far were contemporary with the buildings lower down the hill. The graves were connected with a paving carefully constructed with pebbles, showing that the burial place was well organised. Moreover, the graves might have been enclosed by a stone wall, but the dating of this wall and its relation to the graves is unclear. The tombs do not share the same orientation. They were mostly placed in relation to each other and they do not seem to refer to the contemporary houses in any way.

The earlier grave in Barbouna, dating to the transitional MH II/III period, belongs to this group. The later graves of the group date to the MH III period. Both adults (B6, 83AS; B7, 84AS; B11, 88AS), males (B6, 83AS) and females (B7, 84AS), and sub-adults (B15, 91AS; B12, not studied) were buried in the terrace above the houses.

At Kastraki the Acropolis area, which is comparable with the 1st terrace at Barbouna, was almost exclusively used for adult burials.

[172] The area was used again as burial place during the Hellenistic or Roman period (Hägg I. 1973, 55-57, 68-70).

Group II

This group is situated lower down the slope of the Barbouna hill and is closely associated with habitation levels. In total 11 graves have been found inside the settlement.

Two adult small 'shaft graves', B30 and B32/34, were cut down the ruins of Room N, Building 2 during the MH III/LH I-LH IA period. A series of neonate[173] graves (mainly pits and one cist) were found around the two shaft graves. However, their actual position and their chronological association with Building 2 are not clear. They all date to the MH III period and they might have been contemporary with or later than the house. However, the concentration of many graves in one area makes it more possible that they were later than the house, at least some of them.

Graves Alpha and Beta were opened upon the ruins of Building 1. Grave A89.324, on the other hand, might have been associated with the same building. It should be kept in mind, however, that only a small part of Building 1 was excavated and more graves might have existed in the unexcavated part of the house. All three graves date to the MH III/LH I-LH I period. Moreover, graves Alpha and Beta share the same NE-SW orientation, but do not follow the NW-SE orientation of the house wall. The skeletons of these two graves have never been examined by an anthropologist. According to the excavator, grave Alpha might had been an adult burial and grave Beta a sub-adult burial. A YA male was buried in grave A89.324.

In the following chapters the coherence of these two groups in terms of age and gender inclusion, of grave types and finds and of mortuary practices will be studied. It is already clear, however, that differentiation existed between the two groups in terms of age inclusion, grave types and period of use. Group II contained later graves, neonate burials and shaft graves that are missing from Group I.

[173] The association of skeletons 111AS (A74.159): Juvenile- adult and 112AS: neonate (10lm) with grave B35 is problematic. Nordquist (1987, List of graves) believes that skeleton 111AS probably comes from this grave. Dietz (1982, 85) thinks that B35 was probably a LH burial of four individuals. According to him, skeleton 111AS comes from a grave from this area but with no grave number. Skeleton 112AS may belong to grave B35 but this is not clear. The neonate 112AS had been incorporated into the Mycenaean (LH III) sample, which Angel considered 'too small and fragmentary' to include in his report (Angel 1982, 105). However, since Nordquist (1987) included B35 in the list of MH/LH I graves, Igvarsson-Sundström (in Voutsaki et al. 2007, 71) also included 112AS in the re-examination.

Group	No of graves	Date	Area	Associated architecture	Graves
I	5	MH II/III- MH III	1st terrace above the houses	Stone pavement, wall (grave enclosure?)	B6, B7, B11, B12, B15
II	11	MH III-LH I	Central trench, Levendis plot	Building 2	B18, B28, B29, B30, B32, B33, B34, B35
			Koulmas plot	Building 1	Alpha, Beta, A 89.324?

Table 130: burial groups

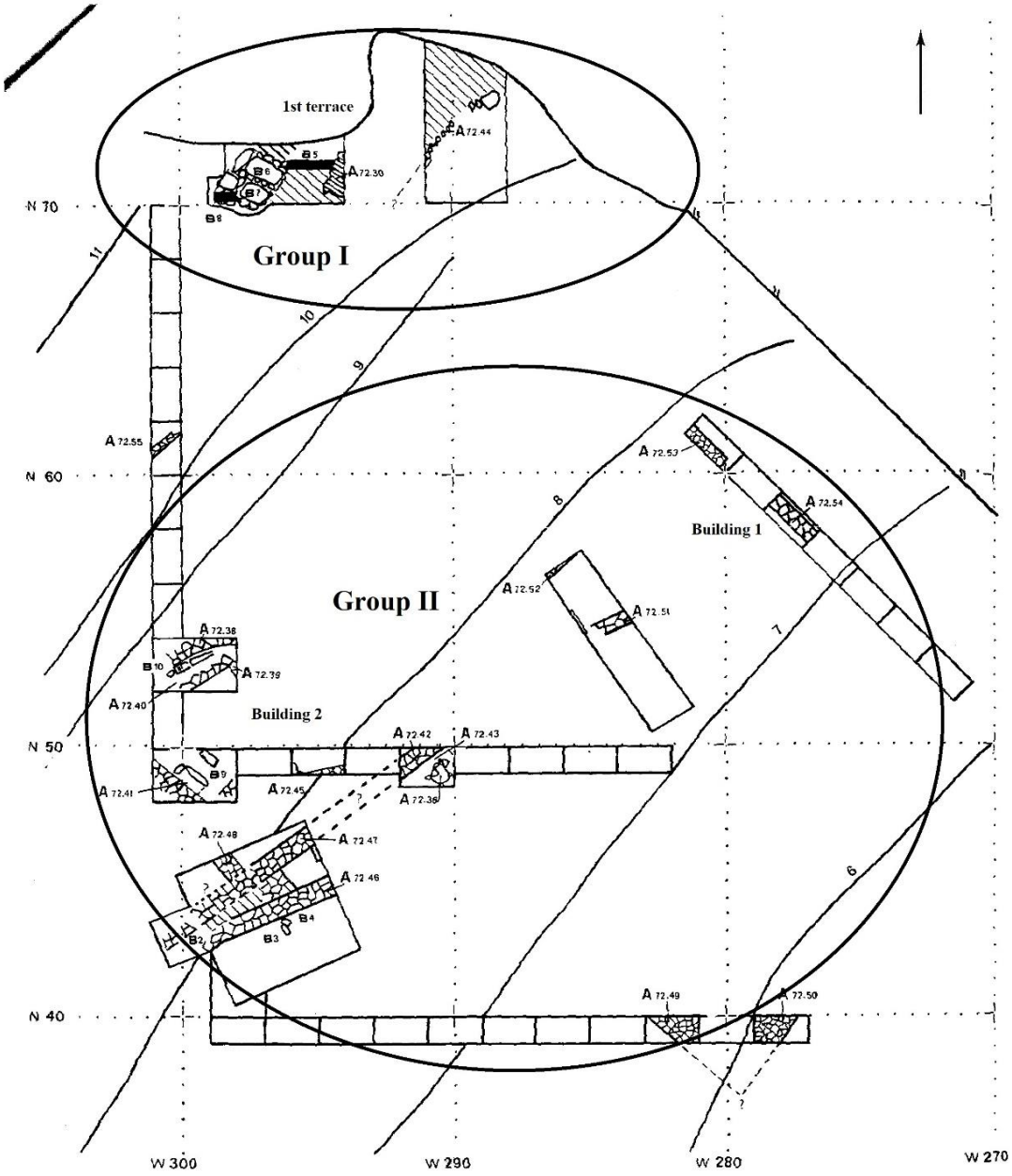

Fig. 167: The two grave groups at Barbouna (not all graves are illustrated) (after Hägg I. & Hägg R. 1973, plate I).

2.11 BARBOYNA: GRAVE ANALYSIS

I will now turn to graves and discuss the skeletal remains and grave types.

2.11.1 The skeletons

20 individuals were buried in the 16 graves excavated at Barbouna. 17 skeletons derived from 13 of those graves have been examined by an anthropologist. 16 of them were first studied by Angel (1982) and recently re-examined by Ingvarsson-Sundström[174] (in Voutsaki et al. 2007, 70-76). The sub-adult skeleton from grave B12 was insufficiently preserved and has never been studied. Also, the skeletons from graves Alpha and Beta have never been examined. According to the excavator, they probably belonged to an adult (Alpha) and a sub-adult (Beta) individual (Nordquist 1987, 98-99, List of graves). All skeletons had at least some bone elements preserved, which could be used for indication of age, and only one adult skeleton (B11, 88AS) was missing bones necessary for a sex determination. In general, Angel's (1982) and Ingvarsson-Sundström's (2007, in Voutsaki et al., 71) estimations of age and of sex of the adult skeletons are in agreement. However, wider age categories instead of the exact age were used by Ingvarsson-Sundström. Apart from age and sex determination, a systematic study of skeletal lesions and pathologies has been carried out during the re-examination of the skeletons (Ingvarsson-Sundström, in Voutsaki et al. 2007, 71). Here, the results obtained from the re-examination of the preserved material will be followed.

In total, seven adults -41.2% of the skeletons, one juvenile and nine sub-adults -53% of the skeletons- have been found (Table 131). It is worth noting that individuals older than 40 years old have not been found until now. The sub-adult skeletons were mainly neonates, among which some new-born. Interestingly, all neonates were found in Group II, and particularly in the area of Building 2, Room N. Similar age clustering was also observed in Kastraki.

The age composition of the burial assemblage is thus similar with the later phases of Kastraki and Lerna, although here the predominance of sub-adults is not as marked as at Kastraki. Age composition is different from that in the EC, where neonates are underrepresented and new-borns are totally missing. Once more, the data reveal that the burials at Barbouna cannot be considered as belonging to an extramural cemetery.

[174] The osteological re-examination was financed with a Research Grant by the Institute of Aegean Prehistory, as part of the Middle Helladic Argolid Project.

From the adult skeletons four were males, two females and one of unknown sex (Table 132). Based on limited data, gender differentiation in the inclusion in the cemetery was not observed. Gender differentiation was also absent between the two grave groups.
Furthermore, 'extra' (or morphologically dissimilar) bones indicating the presence of at least four more individuals were found among four skeletons during the anthropological re-examination (Table 133).[175] Those bones belong to three adults and one neonate and they were found together either with adult (3) or sub-adult (1) skeletons (Ingvarsson-Sundström, personal communication). The graves where extra bones were found were placed at the terrace above the houses (2) and in the settlement (2). Thus, no clear age preference or spatial pattern concerning these bones emerges. Those bones may have entered the graves by chance together with the soil used to cover the grave. This was possible in the settlement, where there was greater chance of disturbance of earlier graves. In the terrace above the settlement however, this was less likely to happen. We may therefore suggest that those bones were placed intentionally, or might have been the left-overs of earlier removed burials. In any case, further anthropological and contextual analysis is required before we reach any conclusions. It should be noted however, that extra bones were found in every re-examined skeletal assemblage in all sites studied here, indicating that the burial use of all cemeteries was more intense than we think.

Health status and diet

The skeletal material from the EC and Barbouna was not separated during the palaeopathological and stable isotopes analyses, therefore the results already presented for the EC (see chapter 2.7.1) are also valid for Barbouna.[176] In short, the dietary pattern of adults and juveniles shows a heavy reliance on mainly terrestrial foods, i.e. C3 plants and a varying amount of animal protein (meat, milk or dairy products) (Ingvarsson-Sundström et al. 2009, 5-6). We can only add here that a male (A89.324) from Barbouna (the only adult which gave results in the stable isotope analysis) shows slightly lower nitrogen value than the mean male value from the East Cemetery. It should be mentioned, however, that the male from the pit burial from the EC (1971-10)

[175] These bones were already placed in separate bags probably by Angel (Ingvarsson- Sundström's data base).
[176] 14 bone samples were analysed from Barbouna but only 6 provided enough well-preserved collagen for analysis. Only one was an adult (Ingvarsson-Sundström et al. 2009, 4).

(containing a golden earring among other things), show the lowest nitrogen value of the entire Asine sample, suggestive of a mainly plant-based diet (Ingvarsson-Sundström et al. 2013, 156).

To sum up, sub-adults, mainly neonates, and adults no older than 40 years old have been found in Barbouna. Age differentiation in the composition of the two grave groups has been observed. No gender differentiation is attested in the inclusion in the cemetery or in the composition of the two grave groups. Furthermore, the existence of morphologically dissimilar bones in many burials shows that the mortuary use of this part of the MH settlement was more intense. Finally, the health status and diet do not differ from other MH populations in the Argolid.

Age category	**Approximate biological age**	**Number of skeletons**
Foetus-Neonate	premature-1y	**8**
Infant	1-6y	**0**
Child	6-12y	**1**
Juvenile	12-18y	**1**
Young adult (YA)	18-30y	**3**
Prime adult (PA)	30-40y	**4**
Mature adult (MA)	40-50y	**0**
Old adult (OA)	+50y	**0**
Adult (studied)	+18y	**0**
Adult (not studied)	+18y	**1?**
Sub-adult (not studied)	<18y	**2?**
	Total	**20**

Table 131: age categories

Age category	Male	Female	Unknown	Total
Juvenile	-	-	1	**1**
YA	2	1	1	**4**
PA	2	1?	0	**3**
MA	0	0	0	**0**
OA	0	0	0	**0**
Adult	-	-	1?	**1**
Total	**4**	**2?**		

Table 132: Sex distribution

Grave	Group	Date	Skeleton	Extra bones
B6	I	MH III	83AS: PA male	Adult patella, atlas, axis
B15	I	MH III	91AS: child	Adult illium and acetabulum
B30	II	LH I	107AS: PA male	Adult mandible frgmnt
B32	II	MH IIIB-LH I	108AS: YA female	Neonate rib frgmnt

Table 133: Extra bones found in the graves (after Ingvarsson- Sundström's data base)

I will now turn to grave types and furnishings and examine whether age and gender differentiation was observed there.

2.11.2 Grave types and furnishings

In this section variability in graves types and furnishings and their possible use for different parts of the population will be studied. Change through time will also be examined.

In Barbouna three different grave types were used: there were pits, cists and 'shaft graves'. Burials jars have not been found. About half of the graves were cists used for adults and sub-adults and both sexes. Pits were the second more common grave type used for neonates. Finally, three small 'shaft graves' were used for adults, mainly males.

a. Burial jars

Burial jars have not been found at Barbouna. In contrast, at Kastraki jars were still sporadically used for sub-adult burials inside the settlement during the MH III period. However, this contrast might have been the result of chance, as only a small part of the settlement at Barbouna has been excavated.

b. Pit graves

Five pit graves have been found at Barbouna (31.2% of the graves). Their shape and dimensions are unknown (unpublished graves). One of them was cut into the rock (B28). They all date to the MH III period.

The percentage of MH III pits at Kastraki (55.5%) was higher. On the other hand, the contrast with the EC, where only cists (and one pit) were used during the same period is outstanding.

Spatial distribution

The majority of the pits were found in Group II, Building 2. Further, a pit was found in Group I, in the terrace above the houses.

Age and gender

Mainly neonates were buried in pits. The association of the juvenile-adult skeleton 111AS with pit grave B35 is problematic (see p. 474, footnote 173). Nevertheless, a neonate (112AS) was also buried in the same grave (B35).

Furnishings

All pits were un-covered. However, a small irregular heap of stones consisting of one to two layers above grave B12 might have been used to cover or to mark the grave. This was an infant burial (skeleton not studied) found in Group I, in the terrace above the houses.

A floor made of pebbles was found once in the double neonate burial B33. Finally, in grave B28 a small line of stones formed a kind of a border on the NE side of the pit.

Marker

The heap of stones upon grave B12 may have served as a marker.

To sum up, a MH III horizon of neonate pit graves seems to have been existed in Barbouna. The majority of them were placed close together in the area of Building 2.

c. Cist graves

Seven cist graves have been found at Barbouna (43.7%). This was the most common type of grave used at this site. In contrast with the EC, the size of the cists depended on the age of the deceased. Thus, adult cists were 1-1.50m long and 0.40-0.70m wide, while the child cist (B15) was 0.85m long and 0.50m wide. The dimensions of the neonate cist (B18) are unknown. The depth of the cist graves was about 0.40-0.50m. One of them dated to the transitional MH II/III period, four to the MH III period and two to the MH III/LH I-LH I period. In Kastraki the use of cists starts already in the MH I period, but it became more intensive during the late phases of the settlement.

Spatial distribution

Cists were found in Group I (4) and in Group II (3). Thus, no spatial pattern emerges.

Age and gender

Three single adult burials and three sub-adult burials of different ages, one of which was double (B18), were found in cist graves. From the adult individuals one was male, one female and one of unknown sex. Thus, no obvious preference in age and gender of the deceased buried in cists was noticed.

Furnishings

Most of the cists (4) were covered with stone slabs.[177] In grave B6 the cover slabs and the top course of the cist walls were built of pinkish-violet limestone probably brought from the island of Rhodi of Tolon. It has been proposed that these parts were left visible above the ground (Hägg I. 1973, 58). In grave B7 a row of stones surrounded the cover slabs, indicating once more a special care for the appearance of the cist on the ground. The covered cists belonged to sub-adults and adults of both sexes.

The majority of the cists had floors made of pebbles (5 graves). In grave B15 the pebbles covered the entire bottom, except from a small area just below skull, where reddish and clayey soil was found. In grave B11 the pebbles were mixed with worn sherds and shells. The existence of a floor is uncertain in grave Alpha, while the bedrock formed the floor of grave B7. Covers and floors were combined at three burials, one adult and two sub-adults.

Moreover, a skeleton cover was found in grave B11. The grave filling consisted of three distinct layers of soil. The second layer was intended to cover the body. It was made of

[177] Cist grave B11 was partly destroyed probably when LH structures were built to the SE. Most of the E and N walls, as well as the cover slabs (?) were missing (Backe-Forsberg & Nordquist n.d.). Grave Alpha was also disturbed. Grave Beta was uncovered (Nordquist 1987, List of graves).

loose sand, without stones, but mixed with some MH sherds. A possible skeleton cover was also found in grave B6. There, some 20 fiest-sized stones were found scattered over the legs of the skeleton, mixed in the soil. Both burials where a skeleton cover has been found belonged to adults, one of which was male, while the second could not be sexed.

Once, a stone pillow was found again in the adult male grave B6. A nearly rectangular limestone slab, surrounded by three other stones was placed under the head of the deceased. Finally, in the child grave B15 the slabs of the inner frame along the W side partly overlapped the cist walls and formed a kind of shelf.

It becomes thus obvious that a strong contrast exists between pits, where furnishings are almost absent, and cists, where many different furnishings have been found.

Marker

No grave marker was found. However, some graves may have been visible on the ground (see p. 482).

To sum up, cists of different sizes for adults and sub-adults were widely used at Barbouna. Gender differentiation or differentiation between the two grave groups has not been observed. Cists were well furnished with different kinds of constructions; there is no standardisation.

If we now turn to cist construction, two different types have been found at Barbouna: there were mixed type cists and a cist with walls formed of vertical placed stone slabs. Cists constructed with horizontally placed stones in rows are missing from Barbouna.[178]

i. Cists with walls formed of **vertical placed stone slabs**.

Only one cist was made of vertically placed slabs. On the contrary, at Kastraki and Lerna this was the most common type of cists. At the EC cemetery this cist type is equally represented with cists built with horizontally placed stones in rows. The grave dates to the MH III/LH I period.

Spatial distribution

The grave (Beta) was found in Group II, upon Building 1.

[178] No information is available about the mode of construction of two cists (B18 and Alpha).

Age and gender

According to the excavator, an infant was buried in the cist. However, the skeleton has not been examined.

Furnishings

The grave was uncovered. Its floor was made of pebbles.

Marker

A marker was not found.

We see therefore that this was an exceptional cist type at Barbouna. However, the possibility cannot be excluded that more cists of the same type existed, but have not been excavated.

ii. **Mixed type:** cists with some walls formed of vertically and some of horizontally placed slabs.

Most of the cists found in Barbouna (4) were of mixed type (Fig. 168, 169, 170). The earlier of them dates to the MH II/III period and the remaining to the MH III period. Mixed type cists were also the most common cist type of the EC, dating from the MH II until the LH I period. The use of mixed type cists increases also at Kastraki during the late phases.

Spatial distribution

Mixed type cists have only been found in Group I, in the terrace above the houses.

Age and gender

Three adults of both sexes and a child were buried in this type of cist.

Furnishings

Three of them were covered and another three had floors. Covers and floors were combined twice, in a PA male and in a child burial.

Marker

No marker has been found.

To sum up, mixed type cists were widely used at Barbouna. Although age and gender differentiation it not apparent, spatial differentiation is marked. All mixed type cists were found in Group I, in the terrace above the houses. It can thus be suggested that this type of cist was mainly used in Asine for graves placed at some distance from the

houses, in a terrace above them at Barbouna and at the extramural EC. However, this was not confirmed in Kastraki, where mixed type cists were found in different contexts.

Fig. 168: mixed type cist B6 on the 1st terrace (from Hägg & Hägg 1973, fig. 50, 54).

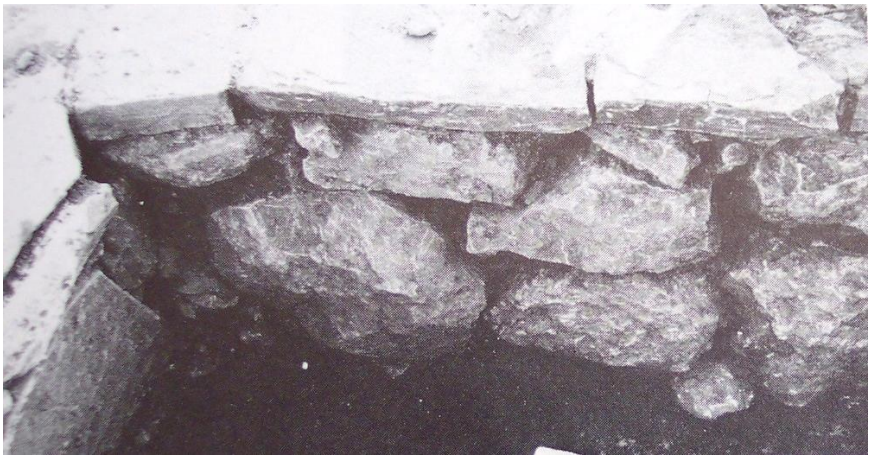

Fig. 169: detail of wall construction in grave B6 (from Hägg & Hägg 1973, fig. 52).

Fig. 170: mixed type cist B15 on the 1st terrace.

To conclude on the use of cists: spatial differentiation has been observed in the cist types used inside the settlement and in the terrace above them. Moreover, Group I shows coherence in the grave types used, as four of the five graves found there were of the same type. Standardisation in grave types, taken together with the existence of a stone pavement between the graves and of a possible enclosure wall, shows that a well-organised burial ground existed in the terrace above the houses, but also emphasizes (kin?) relations among the people buried.

d. 'Shaft graves'

Finally, three 'shaft graves' have been reported from Barbouna. These graves however, were not of the same elaborate type known from Mycenae or from Lerna. Their size is smaller, roofing system is missing and the mode of construction of their walls closely resembles simple cists. Moreover, the walls of each grave were not constructed in the same way. Thus their type is neither well defined, nor standardised. Their characterisation as shaft graves then is basically based on the existence of a shaft above them (observed also sporadically in Lerna above different kinds of graves). For the sake of consistency with other studies referring to Barbouna these three graves will be referred here as small 'shaft graves'. They could as well, however, called large cists (Dietz 1991, 146).

All three small shaft graves were found in Group II. Two of them were opened above the ruins of Building 2 (B30, B34/32) and the third above Building 1 (A89.324).

'Shaft grave' B30

'Shaft grave' B30[179] dated to the LH IA period. A PA male was buried in extended position in the grave (Fig. 171). However, the existence of a part of a second adult mandible (Ingvarsson- Sundström's data base) may indicate that the grave had been reused, or that the extra bone has been placed intentionally. Four vessels were placed in the grave, which was covered with stone slabs. The bedrock served as floor. Many sherds were found in the shaft of the grave (Nordquist n.b. (a)).

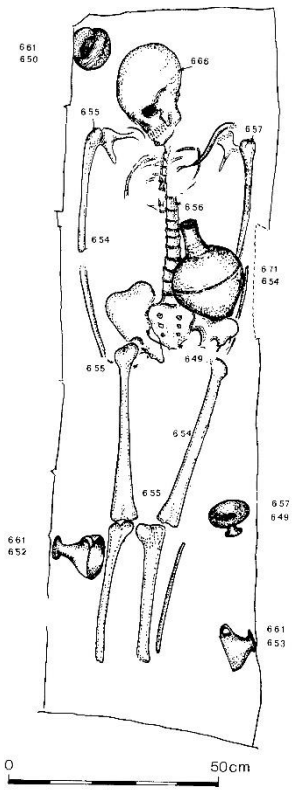

Fig. 171: 'Shaft grave' B30 (from Nordquist 1987, fig. 97).

[179] Unpublished; inner dim.: 1.60-1.70x0.50m; walls built with horizontal rows of stones; no roofing system; shaft exists (Dietz 1991, 146).

‘Shaft grave’ B34/B32

The first burial in ‘shaft grave’ B34/B32[180] (B32) dated to the MH IIIB-LH IA period. The bones of the YA female[181] were probably removed from the grave and placed on the top of cover slab, when the grave was reopened for a second burial (B34) (Fig. 172). Four vessels found with the secondary burial may originally have been placed in the grave and removed together with the bones, or may have been deposited at the time of the secondary burial.

During the LH IA period the grave was reopened and a YA male was placed in contracted position in the grave. A cup was placed in the grave. Only the centre of the large shaft was opened and the cover was broken and taken up. The old burial was removed, the new was put in and the grave was carefully closed with the monolithic broken cover. Three steps were leading down the shaft of the grave. The bedrock served as floor of the grave.

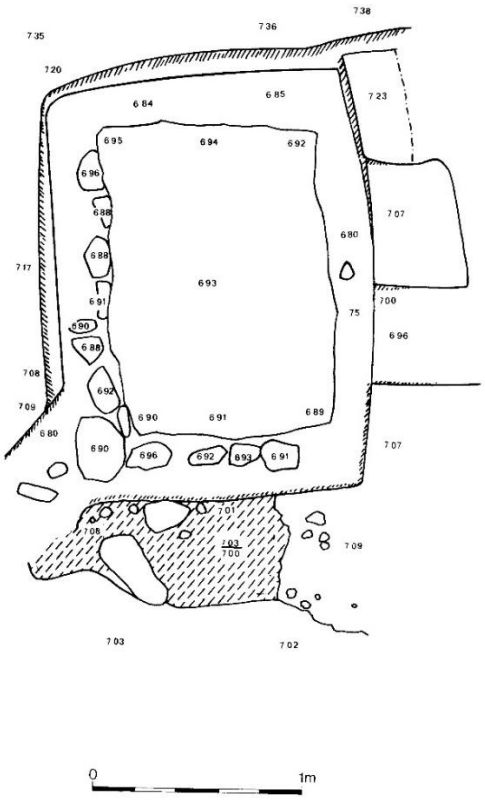

Fig. 172: ‘Shaft Grave’ B34 (from Nordquist 1987, fig. 96).

[180] Unpublished; inner dim.: 1.5x1.0m; walls made of vertical slabs; no roofing system; shaft exists (Dietz 1991, 146).

[181] A neonate rib fragment was found with the bones of the YA female (Ingvarsson- Sundström’s data base).

'Shaft grave' A98.324

Finally, the small 'shaft grave' A89.324[182] dated to the transitional MH III-LH I period (Fig. 173). A YA male was buried contracted in this grave and accompanied by three vessels. Three conglomerate slabs, which rested on a stone frame, covered the grave. The floor was made of pebbles. The shaft above the grave was ca. 0.75m deep and was filled with compact clay soil and a very dense packing of stones. Sherds, shells and animal bones were found in the shaft. These are usual finds in the shafts of shaft graves in Lerna and Mycenae.

Fig. 173: 'Shaft grave' A89.324 (from Hägg & Nordquist 1992, fig.4).

It becomes thus obvious that this more elaborate type of grave was exclusively used for adult burials and mostly for males. Interestingly, small 'shaft graves' were only opened upon ruined houses and the same holds true for the Lerna shaft graves. The Barbouna 'shaft graves', however, are better described as a type between cists and real shaft graves, as they have elements of both. This grave type is missing from Kastraki and from the East Cemetery (but a large cist has been found in the EC).

[182] Unpublished; inner dim.: 1.05x0.50-0.60m; walls made of horizontally and vertically placed slabs; no roofing system; shaft exists: 0.75m deep (Hägg & Nordquist 1992, 63-64; Nordquist n.d. (b)).

2.11.3 Mode of disposal

Three aspects of the burials will be analysed: single versus multiple burials, primary versus secondary treatment and body position and orientation. Our aim is to examine age and gender differentiation and status and kin positions as well as spatial variation.

a. Single and multiple burials

All burials at Barbouna were inhumations and most of them were single. However, at least three double burials have been found (B18, B29, B33). In all three, two neonates were buried together, probably simultaneously.[183] Double adult-sub-adult burials, which were found at Kastraki and at the EC are missing from Barbouna.

The small 'shaft grave' B34/B32, on the other hand, was used for two successive burials, that of a YA female and a YA male. This was a clear case of later re-opening of a grave in order to bury a second individual. Barbouna is the only area at Asine, where two successive burials took place in one grave. It is not a coincidence that this happened in a shaft grave.

All double burials were found in Group II, in the area of Building 2, pointing to shared practices within the group. The double neonate pit burials dated to the MH III period, while the second interment in 'shaft grave' B32/34 took place during the LH I period.

As we have seen, however, in four graves additional bones of individuals other than the main burial were found during the anthropological re-examination of the skeletons (Table 133). The occurrence of these bones may suggest that the practice of removing the bones from the primary burial was more common.

To conclude, double burials were rather exceptional at Barbouna. When double burials occur, age seems to have been a decisive criterion. The spatial distribution of those burials may indicate that some groups were more aware in emphasising their common identity, though we are dealing with few cases. Most of the times the individual status of the deceased was emphasised, at least in the mode of disposal.

b. Secondary treatment

At Barbouna secondary treatment of the skeleton is securely attested only once. The disarticulated bones of a YA female (108AS, burial B32) were placed on the top of the

[183] The association of a juvenile/adult skeleton (111AS) and a neonate skeleton (112AS) with grave B35 is problematic (see above).

cover slab of 'shaft grave' B34, together with the grave goods. The YA female (108AS) was probably the first occupant of grave B34 (MH IIIB). When the second burial, of a YA male (110AS), took place during LH IA, the bones of the first occupant were removed. However, we could only be sure that the burial is removed from the grave below – and not from somewhere else- if small bones or fragments were found in the grave. The possible use of the same tomb for two successive burials is a strong evidence that the deceased belonged to the same group and that they were probably kin related.

Seven skeletons, on the other hand, were found articulated, with no evidence of secondary treatment. For the remaining 11 burials we cannot conclude whether they were primary or secondary either because they were disturbed by later activities (B7, B11, Alpha), or because they lack detailed description and a published excavation photo or plan (B12, B29, B33, B35, Beta).

Finally, as it has already been noted (see section 2.11.1), the occurrence of additional bones in four graves may indicate either that these belong to removed earlier burials, or that few selected bones from burials buried elsewhere have been placed in the grave.

We see therefore that typical secondary burial is a late and exceptional practice at Barbouna associated with larger and well-constructed graves. A similar, but earlier (MH III) burial has been found in Lerna (chapter 1.3.3b), while other examples dating to the same late period are attested at the extramural cemeteries in the North Sector of Argos (Protonotariou-Deilaki 1980).

c. Body position and orientation

Once more, age and gender differentiation and coherence inside grave groups will be studied this time in relation to body position and orientation inside the tomb.

i. body position

The body position of nine skeletons is known. Most of them were contracted either on their side (3) or on their back (4) (Table 134). Although the numbers are too small to have any statistical value, there was a tendency to bury adults contracted on their back and sub-adults contracted on their side. The same tendency was also observed at Kastraki and Lerna but not at the Aspis.

If we turn to gender, the three adults found contracted on the right were all male (B6, B34, A89.324), while the adult found contracted on the left is of unknown/intermediate sex (B11) (Table 135). A preference for burying males on the right side was also

noticed at Lerna and possibly at the Aspis, but not at Kastraki (where males are buried on their left side) nor at the EC.

Twice, skeletons were found extended on their back. The graves where these skeletons were found dated to the MH III and the LH I period. The first was possibly female buried in a cist grave (B7) and the second a male buried in a small shaft grave (B30). It seems therefore that only adults of both sexes were buried in extended position. The two graves belong to different grave groups. Extended skeletons were not found in Kastraki, while only one possible case has been recorded in the EC. At Lerna, the few adult extended skeletons date mainly to the SGE.

To sum up, based on body position some inferences on age and gender differentiation have been observed. Sub-adults were usually buried contracted on their side, while adults were buried either contracted or extended. Gender differentiation may be seen on the side preferred for men and women. Finally, clear differences between the two groups have not been found.

Lower limbs position	**Upper body position**	**Side of legs**	**Total**
CONTRACTED	**On side: 3**	Left: 0	**7 skeletons**
		Right: 3	
		Unknown: 0	
	On back: 4	Left: 2	
		Right: 2	
		Unknown: 0	
	On stomach: 0	Left: 0	
		Right: 0	
		Unknown: 0	
	Unknown side: 0		**0 skeletons**
EXTENDED	**On back: 2**		**2 skeletons**
	On stomach: 0		
UNKNOWN	**Unknown: 11**		**11 skeletons**
		Total	**20 skeletons**

Table 134: body position

	Sub-adult	Adults	Males	Females
Contracted on side	2	1	1	0
Contracted on back	1	3	2	?

Table 135: age and gender of contracted skeletons

ii. arm position

The arm position of the contracted skeletons is analysed here in order to examine standardisation and age and gender differentiation.

However, the arm position of only four contracted on their back skeletons is known, making any observations tentative.[184] As with the other sites, the following categories were used (Fig. 174):

A. **Upper body on back**

A1. Both arms folded over chest (1 skeleton: YA male)

A2. One arm across waist and the other on pelvis (none)

A3. Both arms along body (none)

A4. One arm across waist and the other on chest (1 skeleton: PA male)

A5. Both arms folded across waist (none)

A6. One arm along body and the other on chest (none)

A7. One arm along body and the other across waist (none)

A8. One arm folded in front of face and the other folded on chest (none)

A9. One arm folded in front of face and the other across waist (none)

A10. One arm along body and the other on pelvis (none)

A11. One arm folded over chest and the other on pelvis (none)

A12. Both arms on pelvis (1 skeleton: YA)

Finally, the skeleton in grave B15 was buried in a strange position: the legs were bent on the left side, while the arms and the head were turned to the right (Fig. 175).

[184] The arms of the extended skeleton in grave B30 were placed along sides.

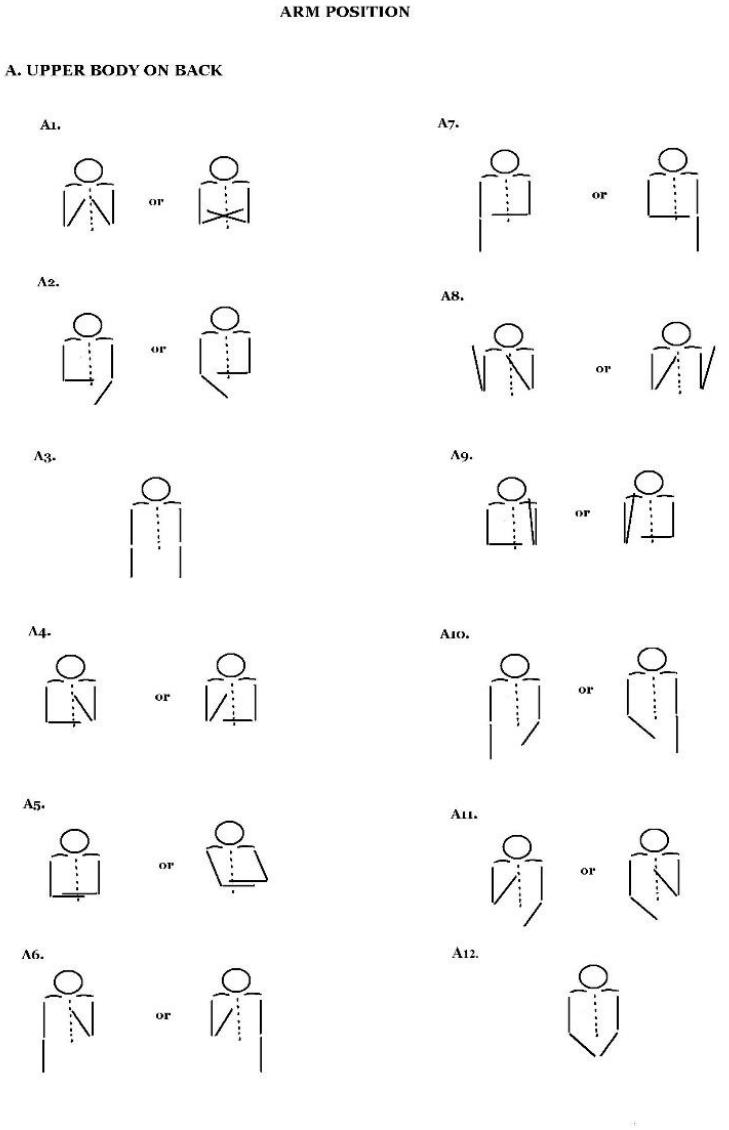

Fig. 174: arm position in contracted on back skeletons

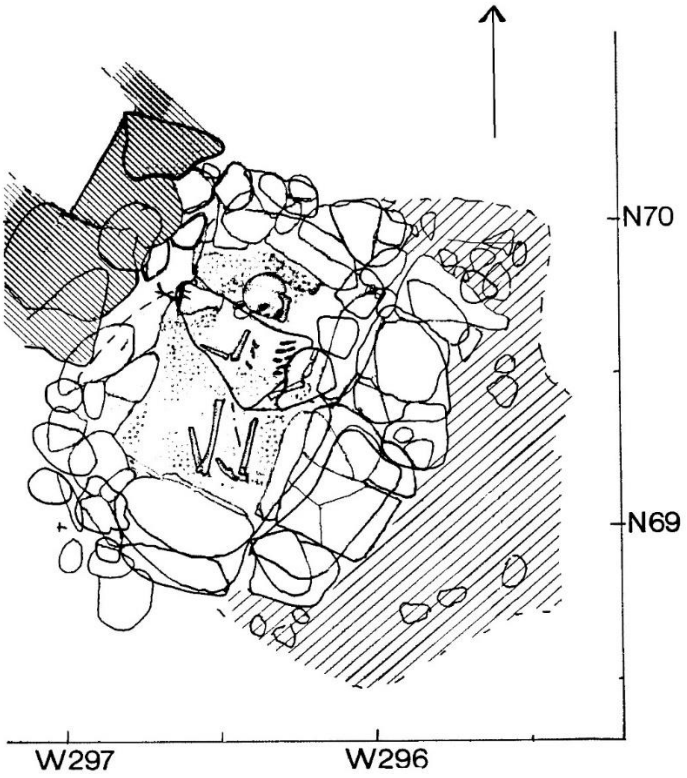

Fig. 175: Burial in grave B15

B. Upper body on side

The arm position of skeletons found contracted on their side is unknown.

Based on these limited data, no pattern concerning age or gender differentiation emerges. In general, it seems that standardisation is missing and individuality is emphasised.

iii. body orientation

The orientation of the head of eleven skeletons is known. The deceased were more often buried with their head towards NW or NE, which is the upper part of the hill (Table 136). However, no standardisation and no clear pattern concerning age and/or gender differentiation were noticed. This is also the case in Kastraki, where most of the deceased were also buried with their head towards the north, i.e. the lower part of the hill.

Overall, drawing together information on body position and orientation no standardisation is observed. Every burial differs in some aspect from the rest.

	N-S	NE-SW	NW-SE	E-W	W-E	S-N	SW-NE	SE-NW	Unknown
	1	2	4	0	1	1	1	1	8
Total	**7**			**0**	**1**	**3**			

Table 136: body orientation

2.12 BARBOYNA: THE FINDS

Finally, the objects deposited in the graves will be presented and analysed here.

2.12.1 Introduction

25 objects were found in ten graves (62.5% of the graves) at Barbouna. This is the highest percentage of MH III-LH I graves containing offerings at Asine. A high percentage of graves containing offerings were also attested at Myloi (77.8%) (see chapter 1.8.1), the extramural cemetery of Lerna, at the extramural cemetery of Prosymna (69.7%) (Blegen 1937; Voutsaki et al. 2009a, 146) and at the extramural cemeteries of the North sector of Argos (52.5%) (Protonotariou-Deilaki 1980; Milka in Voutsaki et al. 2009b, 178), all primarily dating to the MH III-LH I period.

Pottery was the most common find at Barbouna, while the non-pottery objects were almost exclusively simple ornaments. The composition of the assemblage is therefore more restricted than in Kastraki, and resembles more that of the EC. However, weapons and ornaments from valuable materials such as gold, which have been found at the EC, are missing from Barbouna. In addition, shells have been found in two graves. All the pottery and the non-pottery objects and the organic finds are treated as proper offerings. In the following sections correlations with age categories, sex grades, grave types, and burial groups as well as between the finds are examined for each find category.

2.12.2 Pottery

Pottery was the most common offering category in Barbouna, and the same holds true in the other sites.

In total, 18 vessels have been found in six graves (37.5% of the graves). This is again the highest percentage of pottery found in burials at Asine. Only once was a single vessel found in a grave (B34). In the remaining graves more than one vessel was deposited. The placement of more than one vessel in burials during the late phases was attested in all sites examined here. However, none of the graves at Barbouna contained a large amount of pottery.

During the MH III period pottery was mainly deposited in sub-adult burials. Thus, two vessels were found in a child burial (B15) and another three were deposited in a sub-adult, probably infant, burial (B12). In the adult graves, four vessels were found together with the secondary YA female burial (B32). Two of them date to the MH IIIB period and two to the LH IA period (Dietz 1991, 146). It could thus be suggested that

the two earlier vessels were removed from the grave together with the skeleton, while the two later were deposited when the second burial took place, during the LH I period. During the same period in Kastraki and in Lerna pottery was almost equally placed in sub-adult and adult burials.

During the transitional MH III/LH I period and through the LH I period nine vessels were deposited in three adult male burials.[185] All the vessels were placed in the three small 'shaft graves'. We see therefore that during this late phase there was a strong correlation between adult male burials, well-constructed graves and the deposition of pottery.

At the same time pottery was sporadically placed in adult and sub-adult burials in Kastraki. In the EC it was only found in adult, both male and female, graves but sub-adults are anyway underrepresented. In Lerna during these late phases pottery was primarily deposited in sub-adult burials but the adults were usually given more than one vessel.

Concerning the spatial distribution of graves with pottery, four of them belonged to group II[186] and two to group I.[187] This differentiation has a chronological component, as group I graves are earlier and also reflects changing practices, as mainly sub-adults received pottery during the MH III period, while pottery was only placed with adult males during the MH III/LH I-LH I period.

a. Shapes

I will now turn to the type of vessels used as offerings.

i. cups: eleven MH III and LH I cups-61% of the vessels- have been found in the graves at Barbouna (Fig.176, 177). In all six graves containing pottery at least one cup was found. One-handled cups (3) and kantharoi (3) were the most common types of cups. Twice, two-handled cups and once, a cup with loop handle were deposited in graves. Cups were deposited with adults and sub-adults, males and females.

Pottery sets

Cups were deposited together with other cups, with goblets and with jugs.

[185] Grave B30-PA male: 5 vessels; Grave A89.324-YA male: 3 vessels; Grave B34-YA male: 1 vessel.
[186] Graves B30, B32, B34, A.89.324.
[187] Graves B12, B15.

Fig. 176: Vessels MN30586, F73/411:5, MN30587 from grave B12 (photo by the author).

Fig. 177: Vessels MN30323, MN30324, MN30322 from grave B30 (photos by the author).

b. jugs: four jugs -22.2% of the vessels- were deposited in three graves. Jugs were deposited only in adult, male and female, MH III and LH I burials.

Pottery sets

Jugs were found in graves where cups were also found (Fig. 178, 179). Pottery sets composed by the two shapes set in at Lerna from the transitional MH III/LH I period. Moreover, at Kastraki the only cup-jug set was found in a MH III/LH I grave.

Fig. 178: Vessels MN30582, MN30583 from grave B32 (photo by the author).

Fig. 179: Vessels MN30590, MN30591, MN30592 from grave A89.324 (photo by the author).

iii. jars: no jars have been found at Barbouna. The same holds true for Kastraki.

iv. goblets: two goblets, a MH III and a LH I, were found at Barbouna (Fig. 180, 181). One of them was deposited in a child burial and the other in a YA female burial. Goblets have also been found at the EC. There, six of them were deposited in a male burial.

Pottery sets

Goblets were found together with cups and/ or jugs.

Fig. 180: Vessel MN30588 from grave B15 (photo by the author).

Fig.181: Vessels MN30581 from grave B32 (photo by the author).

v. unique shapes: once, a LH I shallow spouted bowl on a low pedestal was found in a PA male shaft grave. This vessel, also referred as ‘lamp’, was imported from Aegina (Fig. 182). It was found together with three cups and a jug.

Fig. 182: Vessel MN30325 from grave B30 (photo by the author).

We see therefore that cups and jugs were the most common pottery vessels chosen for the burials. Overall, the range of pottery types used in burials is relatively narrow. Some instances of age differentiation were observed in the use of jugs, as they have only been found in adult burials. On the other hand, no gender differentiation in the use of different types of pottery was observed.

b. Use categories

Three broad pottery use categories are analysed here: eating and drinking; pouring; storing. Our goal is to explore which functions of the vessels were chosen for burial use and to examine if differentiation existed between different sections of the population.

i. eating and drinking: this was the most common use category at Barbouna, and in the other sites. 13 cups and goblets were used or could have been used for eating and/or drinking purposes. Age and or gender differences have not been observed.

ii. pouring: five jugs and the spouted bowl were used for pouring liquids. Pouring vessels have only been found in adult, male and female burials.

iii. storing: no storing vessels have been found.

To conclude, eating and drinking vessels were widely used in all MH cemeteries and differentiation between different sections of the population has not been observed. Pouring vessels on the other hand, were quite common during the late MH and the early LH phases. At Barbouna age differentiation in the use of pouring vessels has been observed, but the small sample size may have biased our observation. In the other sites such differentiation has not been noticed.

c. Size

I will now turn to vessel size and examine the occurrence of miniature, small and very large pots in the burials.

Three miniature cups (height: +/-5.0cm; Diameter of mouth: 4.7-5.5cm) and one miniature jug (height: 5.5cm; Diameter of mouth: 4.5cm) have been found in the graves at Barbouna (16.6% of the vessels). The three cups were found together in a sub-adult (probably infant) grave (B12), dated to the MH III period. The jug was deposited in a YA male burial (A89.324) dated to the MH III-LH I period. Miniature vessels dated from the late phases have also been found at Kastraki, at the EC and at Lerna. At these sites they were more often deposited in sub-adult but were also found in some adult burials.

Moreover, seven small cups (height: 4.5-11cm; Diameter of mouth: 6-10cm) and a small shallow spouted bowl (height: 5.2cm; Diameter: 10.8cm) were found. They dated from the MH III until the LH I period. They were found in one child and four adult burials.

The remaining six vessels were of medium-large size. They were deposited in one child and three adult burials. No large vessels have been found at Barbouna. The absence of large vessels was also noticed at Kastraki; they are found in other cemeteries though rarely.

Generally, smaller and larger vessels were deposited together in the graves. It seems that the shape and use category was more important than size. Interestingly, once more miniature vessels were not exclusively correlated with sub-adult burials, although more often found in their burials.

d. Wares

As it has been stated before, the aim here is to examine general attitudes towards the quality of the pottery and basically between fine-medium and coarse wares. Moreover, the existence of imported pottery in the burials is discussed.

Fine-medium wares predominate in the graves at Barbouna. Only four vessels were made of coarse ware/fabric (22.2% of the vessels). Three of them were deposited together in a MH III sub-adult burial (B12), while the fourth one was deposited in a MH III-LH I YA female burial (B32) together with fine wares. Nordquist believes that

the three coarse miniature cups were made especially for burial use (Nordquist 1991, 33; n.d. (b)).

Generally, fine wares predominate in all late MH burial grounds. By that time better quality vessels were considered more appropriate for burial use.

Imports

The LH I red-slipped shallow spouted bowl (MN30325) was imported from Aegina. It was found in the small shaft grave B30, which belongs to grave group II. A PA male was buried in the grave. However, much more imported pottery has been found in the floor deposits at Barbouna (Nordquist 1985; 1987, 49-50). In general, less imported pottery was placed in the graves than has been found in MH settlements (Voutsaki 2010c).

e. Preservation

Breakage patterns will be examined here.

i. *intact or broken but whole preserved:* the majority of the vessels at Barbouna (15) were found intact in the graves or, if broken, with no missing sherds. Most of them were chipped. This pattern confirms the observation made in the other cemeteries (Lerna, Myloi, Kastraki, EC) that during the late phases of the period whole vessels, rather than parts of them, were usually deposited in the graves. The pots, however, were used for some time before they were placed in the graves, as is indicated from chipping on their rims and/or bottoms. Therefore they were not made especially for burial use, but were chosen from the repertoire available to the household.[188]

ii. *broken, sherds missing:* twice some parts of the vessels were missing. Once (MN30583) a rim sherd and once (MN30584) different sherds from rim, body and handles were missing. These vessels were probably broken before they were deposited in the graves.

iii. *broken, more than 1/3 missing:* once, only the base and small part of the body of a miniature cup (MN30587) was found. In this case it is more probable that the cup was broken during the funeral and only a part of it was placed with the

[188] Nordquist (1991, 33; n.d. (b)), however, believes that some of the pots found in the graves at Barbouna were made for burial use.

dead. However, the possibility cannot be excluded that the cup was already broken before the funeral.

iv. *broken, single sherd preserved:* single sherds are mentioned twice in Barbouna. In particular, many sherds were found in the shafts of the small 'shaft graves' B30 and A89.324. The occurrence of broken pottery, together with animal bones and shells, in the shafts of shaft graves is a common phenomenon in the Argolid (Mylonas 1973; Caskey 1955; 1956; Lindblom 2007). However, as most graves from Barbouna are not yet published, single sherds not mentioned in the reports may have existed in more graves.

We see therefore that during the late MH and early LH period more complete vessels were deposited in the graves. The same tendency was observed in Kastraki, in the EC, in Lerna and in Myloi.

f. Position

In this section the placement of vessels in relation to the body is examined.

i. *around skull:* four vessels were deposited close to the head of the deceased (22.2%).
ii. *between chest and pelvis:* two vessels were found next to arms and one was deposited on the pelvis-waist of the deceased (16.6%). In the last case, the connection between the body and the object is more direct.
iii. *close to legs:* three vessels in grave B30 were deposited close to legs (16.6%).
iv. *generally in the grave:* the exact position of the three vessels found in grave B12 and the vessel from grave B34 is unknown.
v. *outside or above the grave:* Once, the vessels were placed upon the cover slabs of a tomb in a secondary burial (B32). This practice differs from the deposition of vessels as offerings during the revisiting of a grave.

To conclude, at Barbouna the vessels were mostly deposited in different places in relation to the body in the same grave. Age or gender differentiation was not apparent. This pattern may indicate that the placing of the vessels in relation to the body depended primarily on the available space. This was characteristic of late phases in all cemeteries included in this study.

Let me summarize my observations on the pottery. In Barbouna many graves contained more than one vessel, but no grave contained a large amount of vases. Well preserved, fine and medium ware vessels predominate. In general, the range of vessels used as offerings is narrow. Cups and jugs predominate. During the MH III period pottery was mainly deposited in sub-adult burials placed on the terrace above the houses. Later, a correlation between adult, male, elaborate burials placed above disused houses and pottery was observed.

2.12.3 Non-pottery finds

Seven non-pottery objects, mostly ornaments and one terracotta whorl, have been found in three graves (18.7%) at Barbouna.[189] Five of them were deposited in a single child burial (B15). Additionally, unworked shells have been found in two graves. All objects are considered as real finds, as objects intentionally deposited in the graves.

a. Tools

In contrast with Kastraki, no tools have been found at Barbouna. Tools were found during the late phases at Lerna, but are missing from the EC. The absence of tools from Barbouna may reflect a general tendency not to use tools as offerings during the late phases in Asine or may be simple due to small sample size.

b. Ornaments

Six ornaments were deposited in two graves. In cist grave B15 a child (8-9y) was buried together with two bronze rings, one necklace of beads and two strings of shells. In pit grave B33 a single bone bead was found together with a double neonate burial. [190]

Thus, ornaments were found only in sub-adult burials at Barbouna. As we have seen, ornaments at Kastraki have only been found in adult burials, while at the EC they have been found in adult and sub-adult burials. In Lerna they were mostly found in sub-adult burials.

[189] Beads found together are counted as one ornament.
[190] The beads were not found in Nafplion Museum's storerooms (summer 2006).

i. Beads

Seven beads have been found at Barbouna. Six of them, two bronze, three carnelian and one bone, were found together with fragments of bronze wire and were parts of a necklace (B15). The seventh bead was made of bone and it was found single in the grave (B30). All beads were deposited in sub-adult burials.

Sets of objects

The beads in grave B15 were combined with other ornaments and two vessels. The bead in grave B33 was the only find of the grave.[191]

ii. Rings

Two bronze rings were found under the skull of the child in grave B15 (Fig. 183). They could have been hair or ear rings.

Sets of objects

The rings were found together with other ornaments and two vessels.

Fig. 183: Bronze rings MN31279 from grave B15 (photo by the author).

iii. Other

Again in grave B15 two groups of pierced shells were found (Fig. 184). The first group of seven shells was found at the bottom of an earth-filled goblet (MN30588). The second group of four shells was found between the goblet (MN30588) and a cup (MN30589). The only indication that these shells were used as ornaments, probably as a necklaces, is the presence of holes in their apexes. However, the fact that they were neatly placed one inside the other indicates that they may have been used as food tokens (Backe-Forsberg & Nordquist n.d.).

[191] A bronze fragment (AE24) is also referred by Nordquist (1987, List of Graves) as coming from this grave but no other reference to this find exists.

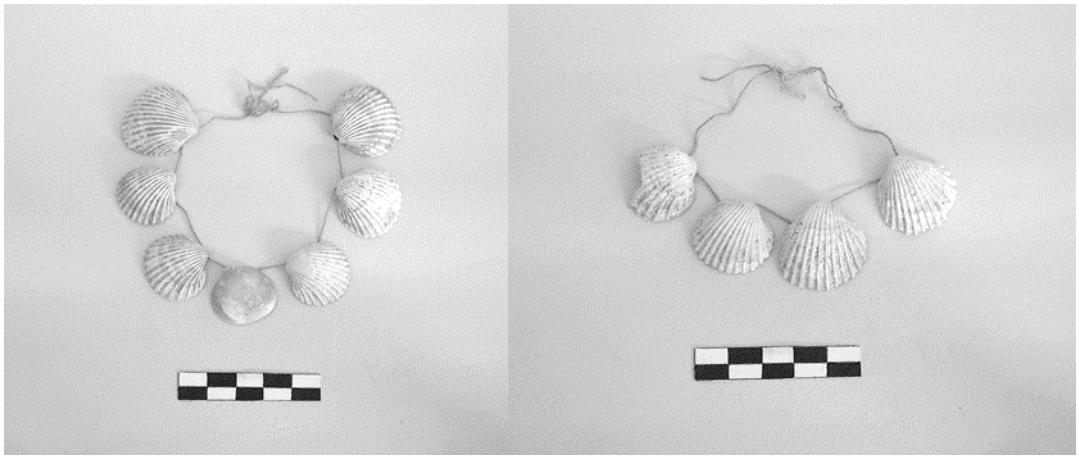

Fig. 184: shell groups F73/422:7 and F73/422:11 from grave B15 (photo by the author).

c. Pins and whorls

In this category objects are included that could have been used either as tools or as ornaments.

i. Pins

No pins have been found at Barbouna and the same is true for the EC. At Kastraki only a small fragment of a bronze pin has been found in a MH III burial. At Lerna on the other hand, the use of bone and bronze pins as offerings or as cloth accessories increases during the late phases. Once more, a contrast between the two sites is observed.

ii. Whorls

One terracotta whorl comes from Barbouna (Fig. 185). It was found beneath the pelvis of a PA female, in MH III grave B7. It may have been used as head of a wooden pin that was holding a garment. Terracotta whorls are missing from the EC, while they were occasionally found at Kastraki, primarily in adult burials. Although most of them are undated, one dated example comes from the MH III/LH I period. At Lerna late whorls were mostly found in juvenile-adult burials.

Sets of objects

No other objects were found together with the whorl.

Fig. 185: terracotta whorl MN30389 from grave B7 (photo by the author).

To conclude, if not the result of sample size, pins made from non-perishable materials were not placed in the graves in Barbouna and the same holds true for the other cemeteries in Asine. Terracotta whorls were occasionally used most probably as cloth accessories.

d. Weapons

Weapons have not been found at Barbouna. Simple weapons used for hunting rather than for fighting were occasionally found in early and late graves at Kastraki and at Lerna. A bronze dagger and bronze knives have been found in late burials from the EC and from Myloi, which are both typical extramural cemeteries.

e. Miscellaneous objects

Miscellaneous objects have not been found at Barbouna and the same holds true for Kastraki. At Lerna, on the other hand, miscellaneous objects dating from all phases exist. Thus, the offerings repertoire at Asine was more restricted.

Let me repeat the basic observations on non-pottery objects. Only few graves (18.7%) at Barbouna contained non-pottery objects. The repertoire of these objects was restricted, consisting of ornaments and a terracotta whorl. Non-pottery objects were found in cist and pit graves. Interestingly, they were missing from the shaft graves. Ornaments in Barbouna have only been found in sub-adult graves, while the terracotta whorl was placed in an adult female burial. All three graves containing non-pottery objects date to the MH III period. Finally, spatial differentiation has not been observed.

f. Organic remains

I will finally turn to organic remains revealed from the burials.

i. animal bones

Animal bones are only mentioned in the reports from the shaft above the MH III-LH I 'shaft grave' A89.324, where a YA male was buried. Animal bones, together with shells and broken pottery, were very often found in the shaft of shaft graves in the Argolid, namely in Grave Cycle B in Mycenae and in Lerna (Mylonas 1973; Caskey 1955; 1956; Lindblom 2007). In all the above mentioned graves animal bones are interpreted as the left-overs of funerary meals (Graziadio 1988, 346; Wright 2004a; Lindblom 2007, 120-123).

ii. shells

Unpierced sea shells have been found twice at Barbouna. In grave B11 a large accumulation of 70 murex shells was found at the SW corner of the grave, near the feet of a YA individual of unknown sex. In the infant grave B12 a single shell was found together with three miniature cups. Finally, as we have seen, pierced shells which could have been used as ornaments were found in the child grave B15.

Grave B11 dates to the MH II/III and graves B12 and B15 to the MH III period. All three graves where (pierced or un-pierced) sea shells have been found belong to burial group I.

In addition, sea shells together with animal bones and sherds were found in the shaft above 'shaft grave' A89.324, where a YA male was buried. As we have seen, sea shells together with animal bones and sherds are usual finds in shaft graves. Those shells, however, are probably the remains of funerary meals, rather than offerings placed with the deceased.

In Barbouna therefore, sea shells were associated with sub-adult and YA individuals. At Kastraki a sea shell was found once in sub-adult late grave. At Lerna a tendency for the deposition of more shells in later graves, mostly sub-adult, was noticed. On the other hand, sea shells are missing from the EC.

iii. charred grains

No charred grains are mentioned in the reports. The soil, however, was not water sieved and information might have been lost.

To conclude, at Barbouna the proportion of graves containing sea shells is quite high, while animal bones are not found inside the graves. It can thus be proposed that shells were considered as a proper offering for young individuals, but this was not the case with animals or animal parts.

2.13 BARBOUNA: CONCLUDING DISCUSSION

Although the burial assemblage from Barbouna is small and represents only a part of the burial ground, some tentative conclusions about social structure are presented here. First, aspects of age and gender differentiation will be discussed, then wealth and elaboration differences will be analysed and next the importance of kinship will be examined. Change though time in all the above mentioned aspects will be discussed in a different section.

2.13.1 Age differentiation

Age differentiation amongst the deceased is attested at Barbouna: it was expressed in the demographic composition of the assemblage and the spatial arrangement of the graves, in the grave types used and, to a lesser extent, in the grave offerings and the mode of disposal of the dead.

To start with, not all age categories were equally represented in the excavated part of the settlement. Overall, more sub-adults have been found and neonates clearly predominate. Moreover, from the adult group no individual older than 40 years old has been found so far. The predominance of sub-adults fits well with the expected pattern of an 'intramural' cemetery. Moreover, age composition of the burial assemblage is similar with the later phases of Kastraki and Lerna.

Some differentiation was also expressed in the spatial context where the graves were placed. Thus, all the neonate burials have been found in grave group II, which was closely associated with Building 2. However, adult burials have also been found in the same area. In the terrace above the houses older sub-adults and adults were buried.

Differentiation between adults and sub-adults can also be seen in the choice of grave types and grave furnishings. For instance, only adults have been buried in the three small shaft graves and skeleton covers have only been found above adult skeletons. On the other hand, mainly neonates were buried in pits.

If we turn to grave finds, clear differentiation was observed in the deposition of ornaments and of jugs. Ornaments have only been found in sub-adult burials, while only adults received jugs. Moreover, during the MH III/LH I-LH I period pottery was deposited only in adult burials. During the MH III period pottery was mainly deposited in sub-adult burials.

Finally, age differences were to some extent expressed in the mode of disposal of the dead. Thus, only neonates have been found in double burials and only adults were buried in extended position. Only one typical secondary burial was found, and it was notably an adult.

To conclude, despite of the small sample size, age seems to have been an important criterion of differentiation in Barbouna and in the other Asine late MH burial grounds. Many of the distinctions observed in the burial pattern were between adults and sub-adults. Those distinctions, however, were not always absolute. Other aspects of a person's identity were probably also expressed during the funeral. The role of gender will be examined next.

2.13.2 Gender differentiation

Despite the small number of sexed skeletons some hints of gender differentiation were present, especially during the latest phases of the burial use of the site. Based on these limited data, gender differentiation in the demographic composition of the cemetery was not observed. Gender differentiation in terms of inclusion in the group and in burial practices was also absent between the two grave groups.

Some instances of differentiation were noticed in the grave types, the offerings and in the mode of disposal. Thus, mostly males have been buried in the small shaft graves, while during the MH III/LH I-LH I period pottery was deposited only in adult male burials.

Finally, if we turn to the mode of disposal we see that the contracted on right adults were all male. The same tendency on burying males on the right side was also noticed in Lerna and Aspis, but not in Kastraki. Concerning shaft graves, comparative skeletal data are missing from the two shaft graves from Lerna.

To conclude, it seems that during the latest phase of the MH period and the transition to the LH gender differences in Barbouna became slightly more pronounced than in the earlier phases in Kastraki and may also have been translated into status differences. Men were buried in more elaborate grave types and they were accompanied by grave offerings. It is time to examine elaboration and wealth as means of differentiation.

2.13.3 Elaboration, 'wealth', status

Status differences, as those may have been expressed through grave elaboration, were present at Barbouna, especially during the final phase of the cemetery use. Those

differences were primarily shown in grave construction and in the presence of grave goods.

i. differentiation between individuals

Differences between the graves were minimal during the early phases and they became more pronounced during the later phases of the cemetery use.

If we first examine grave types and offerings, during the earlier phase all adults were buried in cists and differences were minimal. From the sub-adult group, a child stands out as it was buried in a cist and was accompanied by pottery and two bronze rings. The remaining sub-adults, all neonates were buried in pits and were lacking offerings.

During the later phases, however, some adult individuals stand out, as they were buried in small 'shaft graves', which were a more elaborate and time-consuming grave type, while others were buried in cists. Moreover, those 'shaft grave' burials contained more pottery vessels. No grave, however, combined a large amount of pottery was with metal objects or any other exotic material. Silver and golden objects are missing from the graves at Barbouna.

In Barbouna it is impossible to examine if those more elaborate burials were placed in a prominent position. The settlement is only partially excavated, and not one building has been examined in its entirety.

If we turn to burial treatment, the secondary burial and the extended skeletons were found in 'shaft graves'. There was thus a certain tendency for new practices e.g. more vases, extended position, secondary burials, to be associated with 'shaft graves'.

To conclude, during the early part of the cemetery use differences between individuals were minimal. During the later phases a general shift in more substantial and time consuming grave types is noticed and some individuals differ in more than one aspect. At the same time, individual differentiation in terms of 'wealth' was noticed in Lerna and in the EC of Asine. Kastraki was only exceptionally used as burial ground during this time.

ii. differentiation between groups

Although only a small area of the settlement has been excavated, some differentiation was observed in the practices used in the margins and those used in the center of the settlement. Those differences however, can be attributed more to age differentiation and to changing practices through time.

If we first examine grave types, during the MH III period most of the pits were found in group II, while primarily cists were used in group I, at the terrace above the settlement. This differentiation however, reflects age differentiation between the two groups and cannot be translated to 'wealth' differentiation.
Later, during the transitional MH III/LH I and through the LH I graves were opened only in group II, above disused houses. These were cists and 'small shaft' graves. These graves can only be compared with contemporary graves from the EC, a point to which I will return later.
Thus, differentiation between groups in terms of grave elaboration cannot be studied in Barbouna, at least not based on the data available at the moment.

Finally, I will turn to kin relations and the way they were expressed in Barbouna.

2.13.4 Kinship and descent

In every site examined by now, kinship and common descent were expressed in different ways and in differing degrees. In Barbouna the clustering of some graves in the terrace above the houses and the close association of others with freestanding houses gives some support to kin hypothesis. On the other hand, the primarily age based clustering during the MH III period indicates that age was the most important criterion, but this does not rule out that there were also kin relations among the people buried in clusters.
Thus, during the MH III period graves were placed in a terrace above the houses (group I) and inside the settlement (group II). At group I a stone packing between the graves and a possible stone enclosure indicate a well-organized burial place, where adults and a child were buried. This was a coherent group, which may have been kin-based. The possibility, however, cannot be excluded that an organized cemetery for the whole settlement was situated here.[192]
The MH III burials of group II belong exclusively to neonates. These graves were closely associated with a house, although the chronological relation of the two is not clear. In any case, the domestic area was probably considered more appropriate for very young individuals during this time. The fact, however, that all neonate burials at

[192] A more extensive burial ground may have existed here, as the area was not fully excavated (Nordquist 1987, 101).

Barbouna were related with the same house, actually with the same room, does not give direct support to family relations between the buried children or between the children and the people who had occupied the house. Similar age clustering has been observed at Kastraki.

Later, MH III/LH I-LH I graves have only been found upon abandoned houses. Houses no longer occupied were now considered as appropriate places for the opening of graves. Interestingly, the most elaborate tombs of Barbouna were opened in the ruins of houses. These were adult graves closely related with Buildings 1 and 2, which however have only partially been excavated. It can thus be proposed that the burials associated with each house may have been kin-related. Again, the small sample size and the partial uncovering of the houses do not allow further analysis.

Nevertheless, the existence of a secondary burial in Building 2, gives further support to the kin hypothesis. The special care given on the removing of the bones of the earlier burial together with the grave goods and the possible deposition of new offerings indicates that the deceased, or at least some of them, were respected and remembered and that the maintenance of a bond with them was important. Generally, it is widely accepted that the re-opening of a grave for a new interment is a strong sign that the deceased were kin-related.

Moreover, extra bones found with primary burials indicate that the practice of removing skeletons for secondary burial may have been more common.

Finally, the special care given to the appearance of some graves on the ground, may indicate that the graves were supposed to be remembered and possibly re-visited. Nevertheless, the secondary burial is the only secure case for revisiting a grave in Barbouna, while grave markers made of non-perishable material have not been found. Moreover, offerings placed outside the grave, which could be used as evidence for revisiting of the graves, are also missing, again with the possible exception of the secondary burial.

To conclude, in Barbouna there are quite strong indications supporting the hypothesis that kinship and common descent were expressed in grave clustering. The placement of a group of graves in a well-organized burial ground with shared practices during the MH III period, and the practice of secondary burial later on show that relations between individuals were emphasized. Still, these observations are tentative until further research is conducted in the area.

2.13.5 Change through time

The study of change through time in Barbouna faces two problems: the relatively short time span of the burial use of the site and the small sample size. Nevertheless, some important changes are noted between the MH III and the transitional MH III/LH I period. Changes are mainly observed in the placement of the graves, in the grave types used and in the mode of disposal of the dead.

i. Spatial arrangement of the graves

Change through time has been observed in the placement of graves in relation to houses. During the MH III period adult and children graves were placed in some distance from the settlement, in a terrace above the houses. During the same time neonate burials were placed inside the settlement, reflecting an age-based differentiation.

Later, during the transitional MH III/LH I and the LH I period the cemetery in the terrace above the houses is no longer used. The houses lower on slopes are by now abandoned and the area is used for adult, and probably also sub-adult burials.

ii. Grave types

Change through time has also been observed in the grave types used. Thus, pits date only to the MH III period, but cists were also used in this period. During the latest phases of the period under study only cists and small 'shaft graves' were used.

It can be proposed that this change reflects a need for larger and re-usable graves. Inside the cists, the skeletons were more protected, the grave was better defined and the limits between the burial place and the surrounding area were more fixed. Moreover, cists and shaft graves were easily re-opened. The use of larger, deeper and sometimes more elaborate graves is a widespread phenomenon of the late MH period.

iii. Pottery

Despite the relatively short time span, change has been observed in the deposition of pottery with adults and sub-adults.

Accordingly, during the MH III period in Barbouna pottery was mainly deposited in sub-adult burials. Later however, during the MH III/LH I-LH I period pottery was only placed in adult male burials placed in small 'shaft graves'. By that time, a stricter differentiation between adults and sub-adults seems to have been followed.

At Kastraki and Lerna, however, more sub-adult elaborate burials have been found during the latest part of the period. The pattern observed at Barbouna could thus be attributed to small sample size.

iv. Other finds

If we now turn to offerings other than pottery, we observe that all three graves containing non-pottery objects date to the MH III period. Interestingly, non-pottery objects were missing from the later 'shaft graves'. However, the age and gender of the occupants of the 'shaft graves', adult-males, may have been decisive for the deposition of objects other than pottery. Once again any observations are tentative.

v. Mode of disposal

Finally, changes hane been observed in the mode of disposal of the dead. All burials at Barbouna were inhumations and most of them were single. However, at least three double neonate burials have been found. The double neonate burials in pit graves dated to the MH III period.

On the other hand, a secondary burial was attested once, during the LH I period. The disarticulated bones were placed upon a small 'shaft grave'. Generally, during that time secondary burials became more common, showing a renewed emphasis on kin relations.

2.14 ASINE: INTER-CEMETERY ANALYSIS

Asine gives us the opportunity to study differentiation between burial places used by the inhabitants of the same settlement in both synchronic and diachronic terms.

Until now, both the graves found at the EC and the graves found at Barbouna have been considered extramural and they were compared with the graves found at Kastraki, which were considered intramural (Nordquist 1987, 101; 2002, 24-25; Nordquist and Ingvarsson-Sundström 2005). Based on this categorisation, a series of similarities and differences between the 'intramural' and the 'extramural' cemeteries have been suggested. If we consider the similarities first, the same types of graves and furnishings were used; men and women, adults and sub-adults were found; more and less elaborate graves existed in all three cemeteries. However, differences existed as well: cist graves as well as more numerous and richer offerings were mostly found in the extramural cemeteries; the EC was a more organized and conspicuous form of cemetery; finally, more adults than sub-adults were buried in the EC.

Although most of these observations are generally speaking correct, the comparison suffers from the fact that the graves found at Barbouna are treated as extramural and that the graves from the EC and from Barbouna, which mainly date from the late phases, have been compared to all the graves from Kastraki dating to all periods. As a result, differences between the burial grounds may have been over-estimated and misleading (Milka in Voutsaki et al. 2006, 76-80; Voutsaki et al. 2011; Ingvarsson-Sundström et al. 2013).

Here a different approach is followed. First, the graves found at Barbouna are not treated as extramural but as graves opened in a domestic context. Thus, the burial assemblage from Barbouna is seen as a continuation of practices already observed at Kastraki. Moreover, the comparison follows a chronological order: MH I- II, MH III, MH III/LH I-LH I, LH II. In this way, only graves belonging to the same phase have been compared to each other. Such an approach facilitates the study of change through time and gives a clearer picture of the differences between the burial places. In every chronological phase the burial context, the demographic composition of the assemblage, the grave types and offerings used, as well as the burial treatment will be compared.

MH I-MH II

Burial context: Graves dating from the transitional EH/MH and the successive MH I period have only been found at Kastraki, thus in a settlement context, mainly in areas left free from habitation.

During the MH I-II the Tumulus IQ was constructed and the first burials were placed in the area around it, probably during the MH II period. During the MH II or the MH III period, the first grave was opened into the tumulus, while a couple of graves may have been placed in the area around it. It should be stressed though that none of the graves date securely to the MH II period. On the other hand, the existence of a grave (71B), which may date back to the EH/MH period may indicate the existence of an earlier extramural cemetery in this area. In any case, the evidence available at present is insufficient to support the existence of such early extramural cemetery.

During the MH II period burials were still taking place at Kastraki, inside the settlement but also on the terraces above the houses, while during the transitional MH II/III period a grave was also opened at Barbouna, on the 1st terrace above the houses.

Demographic composition: During the transitional EH/MH and the MH I period in Kastraki more adults (11) than sub-adults (8) have been buried. It should be stressed however that many, primarily sub-adult, burials are undated. The examined adult skeletons belong both to males (2) and to females (3). At the EC during the MH I-II period adults and juveniles were buried in large pithoi. The sexed skeletons belonged to females. A child was placed in a cist grave, which however may date to MH III period. During the MH II period at Kastraki a tendency to separate adults from the domestic area was observed; more sub-adults (9) than adults (5) were buried in the core of the settlement, while only adults were buried in the periphery (2). The same tendency was observed at Barbouna, where an adult burial was placed in the terrace above the settlement.

Grave types: During the EH/MH-MH I period at Kastraki cists and stone-lined pits were used for adult burials, jars were used for sub-adult burials and pits for both. At the EC burials in large pithoi were used for adults and juveniles, while the first cists were used for a child and an adult during the MH II or MH III period. The dating of the brick cist remains problematic. During the MH II period in the domestic context only pits and jars have been found in the core of the settlement (Kastraki, Large Trench), while cists

were placed at some distance from the occupied houses (Kastraki, Terrace III and Barbouna, 1st Terrace). It can thus be suggested that the grave type used was largely depended on the proximity to the inhabited area.

Offerings: During the MH I-MH II period wealth asymmetries were minimal. Only a couple of graves in all burial grounds contained any kind of offering (Table 137). Two stand out among these: an adult stone lined pit (MH98) from Kastraki and a double adult pithos burial (1971-15) from the EC. The grave from Kastraki contained a vessel, two bronze rings, a bone awl and a terracotta whorl and it was placed on Terrace II, thus at the periphery of the settlement. At the EC four vessels were placed outside one of the pithos burials. In general, the percentage of graves containing offerings at the EC was higher than Kastraki but the repertoire was narrower.
During the MH I-II period offerings were placed only in adult burials regardless burial place.

Burial treatment: At Kastraki the vast majority of the burials were single. However, five double burials also existed. Unfortunately, only two of them are dated, one to the MH I and one to the MH III period. In the MH I double burial (MH98) an adult and a sub-adult were buried together. The grave was placed at the periphery of the settlement, in Terrace II. The only burial from Barbouna dating to MH II/III was single.
Two double adult-juvenile burials were found in the EC. Those burials are exceptional, as the deceased were placed in large pithoi. Moreover, the possible early date of the brick cist, where according to the excavator more than one skeletons were found, emphasises the early connection of the EC with double burials.
Secondary treatment of the skeleton was attested once in a possible MH II burial from Kastraki (MH24). The skull was missing from an otherwise undisturbed adult skeleton buried in a pit, inside the settlement.

We see therefore that during the earliest phases of the period under study differences were mainly expressed across age groups (though overlaps between them exist as well). These differences were reflected on the grave types used and on the deposition of offerings. During the transitional EH/MH period and the early MH I period the domestic context was used for all burials. Interestingly, only adults were buried at the outskirts of the settlement (Terrace II), indicating a tendency to spatially separate this

age group. This tendency was more obviously manifested with the creation in the MH I-II of the EC and its first association with adult-juvenile burials.

Differences between burials placed in a domestic context, more precisely in the core of the settlement, and in the extramural cemetery are summarised in the age composition of the burial assemblage, in the grave types used and in the type and frequency of grave offerings. Overall, the EC, organised as it was around a tumulus, was not only set apart from the settled area but was also conspicuous. In contrast with burials placed in a domestic context, such a construction created a new landmark, which was visible from the settlement and from the surrounding area. The people who buried their dead in the tumulus cemetery shared a different burial ideology, where the separation of the living and the burial place was stricter. By creating a new cemetery, they were possibly stressing their common descent. The relatively high percentage of double burials reinforces the hypothesis that kinship and common descent were emphasised in the tumulus cemetery.

On the other hand, people living at Asine were already used to burying upon and/or around accumulated debris in the settlement, i.e. the ruined houses where the graves were usually opened. The collapsed houses used for burials may have formed small tumuli/ mounds inside the settlement. It can be suggested that this situation was reproduced, or restaged at an extramural context. Moreover, the placing of adults at some distance of the inhabited space was already practised inside the settlement.

Burial Context	**Grave No**	**Date**	**Grave Type**	**Finds**	**Age - gender**
Kastraki, Terrace II	MH98	MH I	Stone-lined pit	1 vessel, 2 bronze rings, 1 bone awl, 1 terracotta whorl	adult
Kastraki, Large trench	MH21	MH II	Pit?	1 vessel	YA, male
Kastraki, Terrace III	MH80	MH II	Cist	1 vessel	PA, female
East Cemetery	1971-15	MH I-II	Pithos	4 vessels	YA, female; YA, ?
Barbouna, 1st Terrace	B11	MH II/III	Cist	70 shells	YA, ?

Table 137: MH I-MH II graves containing offerings

MH III

Burial context: During the MH III period all burial grounds were in use simultaneously. However, only one grave from the EC probably dates to this period (1970-12).[193] At Kastraki burials were mainly placed inside the settlement, among the houses, while the Acropolis area was only sporadically used. The burial use of Barbouna became more intense. Graves were still placed in the terrace above the houses, but also in the settlement, among houses.

Demographic composition: The gradual separation of the adult burials from the domestic sphere continued: at Kastraki much more sub-adults (14) than adults (5) were buried in the core of the settlement, while one adult was buried on the Acropolis. The sexed adult graves belonged to three males and two females. Age differentiation between the core and the periphery is also attested at Barbouna, where neonates (8) were buried in the core of the settlement, while adults (2) and older sub-adults (1 infant and 1 child) were buried at the margins of the settlement. The adult skeletons belong to a male and a possible female. In accordance, an adult burial was placed at the EC.

Grave types: differentiation in grave types used for adults and sub-adults is not as strict as it used to be: in the domestic context jars were still used for sub-adults, pits were mainly used for sub-adults (13) than for adults (2) but cists were now used for both adults (5) and sub-adults (5). At the extramural cemetery a cist was used for an adult burial.

Offerings: During this period, although wealth asymmetries have been attested inside each burial assemblage, emphasised asymmetries have not been noticed between the burial grounds. Overall more elaborate offerings were deposited in graves placed either at an extramural context, or at the periphery of the settlement (Table 138). The same object categories were now used but gold was only found at the EC. In the settlement context offerings were found in adult and sub-adult burials and in different grave types.[194] At the extramural cemetery offerings were still associated with adult burials.

[193] However, a late MH II date is also possible for this grave (Voutsaki et al. 2010).
[194] At Kastraki most of the cists (4 of 6) contained offerings.

We see therefore that a general increase of graves containing offerings during this period was manifested in the domestic context. A couple of these graves stand out because a more variable assemblage of offerings was placed in them. Those graves were most of the times placed in the periphery of the settlement. The only exception is a double adult burial placed in the core of the settlement at Kastraki. The EC stands out because a golden and an iron item were found in it.

Burial treatment: During the MH III period at Kastraki a double adult burial was placed inside the settlement. However, as it was stressed before, three double burials remain undated. At Barbouna three double neonate burials were found among the houses. At the EC the only possible MH III burial was single.
Evidence of secondary treatment is missing from all burial places.

To conclude, during the MH III period the vast majority of the burials were placed in the settlement context, at Kastraki and Barbouna. The EC was probably only occasionally used, at least in the earlier part of the period.[195] The gradual separation of the adult burials from the domestic sphere continued. On the other hand, differentiation in grave types used for adults and sub-adults was not as strict as it used to be. At the same time, a general increase of graves containing offerings was manifested in the domestic context. While wealth asymmetries have been attested inside each burial assemblage, asymmetries between them were not emphasised. However, the EC stands out because gold and iron was found only there. Finally, double burials, which can be used as evidence of emphasised kin relations, were only found in a domestic context.

[195] However, few graves may date to MH III and others date to the transitional MH III-LH I period (see chapter 2.6.2).

Burial Context	Grave No	Date	Grave Type	Finds	Age - gender
Kastraki, Large Trench	MH20	MH III	Cist	1 vessel	PA, female
Kastraki, Large Trench	MH31	MH III	Pit	1 vessel	OA, male
Kastraki, Large Trench	MH32	MH III?	Cist	1 vessel	Sub-adult
Kastraki, Large Trench	MH34	MH III	Cist	1 vessel	Sub-adult
Kastraki, Large Trench	MH52-53	MH III	Cist	• 1 vessel • bronze tweezers • bronze pin (frg)	MA, male/ PA, female
Kastraki, Acropolis	MH107	MH III	Pit	• 2 vessels • bronze razor • obsidian arrowhead	Adult, ?
Barbouna, 1st terrace	B7	MH III	Cist	Terracotta whorl	PA, female
Barbouna, 1st terrace	B12	MH III	Pit	• 3 vessels • 1 shell	Infant
Barbouna, 1st terrace	B15	MH III	Cist	• 2 vessels • 2 bronze rings • 1 necklace • 2 strings of shells	Child
Barbouna, Building 2	B33	MH III	Pit	Bone bead	2 neonates
East Cemetery	1970-12	MH III	cist	• Gold band • Iron nail	Adult

Table 138: MH III graves containing offerings

MH III/LH I-LH I

Burial context: All three burial places were in use until the transitional MH III/LH I period. Kastraki was only sporadically used for burials, while no graves dating to the LH I period have been found. In the domestic context, Kastraki and Barbouna, all burials are now placed upon ruined houses, at the core of the settlements, which were probably not occupied any more. The use of the EC became much more intense. Graves were opened into and around the tumulus.

Demographic composition: In contrast with the previous periods, in the domestic context more adult (7) than sub-adult (2) burials have been placed. However, it should be kept in mind that many un-dated, especially neonate burials exist at Kastraki. The

studied skeletons were more males (5) than females (1). In the EC eight adults and three sub-adults were buried. During this period the first neonate was buried in the EC together with an adult. The sexed skeletons belong to three males and four females.

Grave types: Concerning grave types, cists now predominate in all burial places. At Kastraki two cists and one pit were found. Accordingly, cists and one pit were found in the EC. On the other hand, shaft graves, although small, which were a novel grave type have only been found at Barbouna, thus in a settlement context. At the same site cists were also used.

Offerings: During these latest phases the majority of the graves placed in the domestic context contained some kind of an offering (except from graves Alpha and Beta from Barbouna) (Table 139). These were mainly adult male burials. On the other hand, less than half of the EC graves contained offerings. These were primarily adult burials. However, the wealthier burial of Asine containing 16 vessels and a bronze dagger was placed at the EC. Moreover, gold was still only found in the EC.

Burial treatment: At the EC one double burial has been found; a neonate was buried together with an adult female. At Barbouna and Kastraki double burials from this period have not been found. However, at Barbouna a novel practise, which is missing from the EC, has been attested: re-opening of the graves and a secondary burial.

To conclude, during this latest period the burial use of Kastraki declines and at the same time Barbouna and the EC became the main burial places. Adults predominate in all contexts, while cists are almost exclusively used everywhere. Most of the adult burials, regardless burial context, contained some kind of an offering, while sub-adult burials received offerings only occasionally. The EC stands out because the largest cist containing the biggest amount of pottery was found in it and because a golden object was placed in another grave. On the other hand, ‘shaft graves’ and secondary burials, both novel practices of the period, have only been found in Barbouna, thus in a settlement context.

Burial Context	Grave No	Date	Grave Type	Finds	Age - gender
Kastraki, Large Trench	MH4	MH III/ LH I	Cist	• 1 vessel • 2 bronze beads	Adult, ?
Kastraki, Large Trench	MH18	MH III/ LH I	Cist	• 4 vessels • 1 shell • Fish bones	Sub-adult
Kastraki, Large Trench	MH23	MH III/ LH I	Pit	Terracotta whorl	PA, male
Barbouna, Building 2	B30	LH I	Sh.Gr.	5 vessels	PA, male
Barbouna, Building 2	B32	MH III-LH I	Sh.Gr/Pit	4 vessels	YA, female
Barbouna, Building 2	B34	LH I	Sh.Gr.	1 vessel	YA, male
Barbouna, Building 1?	A89.324	MH III-LH I	Sh.Gr.	3 vessels	YA, male
East Cemetery	1970-7	MH III-LH I	Cist	2 bronze rings	Infant
East Cemetery	1971-2	MH III or LH I	Cist	2 vessels	Juvenile/adult, female
East Cemetery	1971-10	MH III-LH I	Pit	• 1 vessel • bronze knife • gold ring	YA, male??
East Cemetery	1971-3	LH I	Cist	• 16 vessels • Bronze dagger	Adult, male

Table 139: MH III/LH I-LH I graves containing offerings

LH II

Burial context: During the LH II period only the EC was sporadically used for burials. Two graves were placed at the area outside the tumulus. At the same time a chamber tomb cemetery was established at Asine (Frödin & Persson, 1938).

Demographic composition: One adult and an infant buried above an earlier undated adult burial have been found. The adult skeleton belonged to a male.

Grave types: A pit and a cist were used at the EC during this time. At the same time the first chamber tomb was built in the new cemetery of Asine.

Offerings: Both graves were unfurnished. In contrast, rich offerings were placed in the chamber tomb.

Burial treatment: An infant was buried above the cover slabs of an adult male grave. Although not a typical double burial, the two individuals may have been related.

We see therefore that during the LH II the EC is associated with the simpler and poorer burials of the period. By that time burials in chamber tombs cemeteries had become the norm.

Conclusions

At Asine different spatial contexts were used simultaneously for burials for the greater part of the MH period. Differentiation and change through time has been observed in different aspects of the mortuary data, while similarities were also present. The question then arises: why were different burial grounds used and what was the nature of differentiation between them?

Recently Ingvarsson-Sundström et al. have suggested that the group using the EC set themselves apart from the rest of the community, but in a way that differences with the rest of the community were not unbridgeable (2013, 157-8). In general, the predominance of cists, the higher quantities and greater diversity of offerings and the presence of gold ornaments points to a special status for the group buried at the EC. On the other hand, many unfurnished graves exist, while shaft graves and secondary treatment are missing. Thus, they concluded that the EC group rather than trying to legitimate its already existing status, was trying to create it through mortuary display. The study of the settlement data favours the hypothesis that the so called 'elite' groups were missing from the MH Asine, as not a single house has produced evidence for a larger storage capacity or for accumulated wealth (Voutsaki 2010c; Wiersma 2014).

Although this hypothesis is generally speaking correct, I would like to suggest here that not only the EC group was trying to create their special status through mortuary display. The analysis of the mortuary data has shown that through time the emphasis was shifting between the three burial places. Already from the MH I-II at Kastraki some adult burials were placed in uninhabited areas at the outskirts of the settlement. One of those graves contained the most variable assemblage of offerings, including bronze. At about the same time another group differentiated by constructing a tumulus at some distance from the settlement and by using a different grave type. During the MH III the emphasis seems to have turned again in the domestic context, as most of the furnished graves were placed at the outskirts of Kastraki and Barbouna. The EC was probably

only occasionally used, but a golden ornament was only found in it. Finally, during the later part of the period under study the EC was the focus of mortuary display, while innovations were used at Barbouna. In both the domestic and the extramural context different practices were used to express the status of the deceased.

It seems thus that different groups or families living in Asine were trying to create their status, to emphasise their common descent and to differentiate by using different aspects of burial practices. At the EC the creation of a tumulus, the deposition of gold offerings, and the use of a large cist with many vases and weapon were used as ways of differentiation.

In my view the use of cists at the EC has been overemphasised. First at Kastraki and Barbouna already from the MH II period cists were used at the periphery of the settlements for adult burials, while pits were opened among the houses. Second, during the MH III in the settlement context pits were almost exclusively used for sub-adults, mainly neonates, while from the transitional MH III/LH I period cists predominate in all three burial grounds and pits were only exceptionally used. Therefore, the wide use of cists in the EC should not been seen as exceptional. Age and spatial context, namely the proximity to the inhabited place, were decisive for the use of cists.

At Kastraki the placement of some graves at some distance from the others and from the houses and the deposition of a more variable assemblage in them were the means used to emphasise special status of some individuals (although not necessarily higher social status). Finally, at Barbouna differentiation and possible claims on status was expressed with the use of small ‘shaft graves’ and of different, novel burial practices in association with them.

The emphasis was thus constantly shifting between the burial places. The mortuary pattern reveals that rather than the existence of a local elite, which exclusively used one burial place, different groups were negotiating their status and they were shown their differences from the rest by using diverse practices. The EC group, however, managed to stand out.

CHAPTER 3: THE ASPIS IN ARGOS

3.1 THE ASPIS: INTRODUCTION

3.1.1 Argos

Argos occupies a central place in the Argive plane and has been constantly occupied from the Neolithic until the present day (Pariente & Touchais 1998). The continuous occupation of the city has resulted in a fragmentary picture of the ancient occupation, based primarily on restricted rescue excavations in private plots. The MH occupation was extensive and has been attested in different areas of the city (Touchais 1998, 73-76; Papadimitriou et al. 2015; Philippa-Touchais et al. forthcoming) (Table 140) (Fig. 186).

It has been proposed that a shift occurred during the MH II between the south and the north part of the city. The settlement seems to have been moved towards the north, while the southern area turned to burial place (Touchais 1998, 77-78; Philippa-Touchais et al. forthcoming).

During the MH I-II period, habitation has been attested in the South Sector, in the Deiras and on the Aspis summit (Touchais 1998, 74; Papadimitriou et al. 2015, 165). Few MH I-II burials have been found on the Aspis, in the Deiras and in the North Sector, at the foothills of the Aspis (Table 140).

During the MH III period habitation on the Aspis continues and expands into the North Sector. Burials were still placed among the houses on the Aspis, while the South Sector was now used primarily but sporadically for burials. Finally, the burial use of the North Sector became much more intense.[196] Extensive burial grounds, consisted mostly of MH III-LH I graves, have been excavated in the area east of the Aspis (Papadimitriou et al. 2015, 170-173) (Table 140). Most of the graves were placed in organized flat cemeteries and occasionally under tumuli.[197]

Here the burial data from the Aspis only, and particularly from the SE sector of the settlement, will be analysed, while a sort review of the preliminary study of Deilaki's

[196] The possible MH occupation on Larisa Hill it is not dated more closely. According to Vollgraff (1906) pottery found there is similar with the Aspis.

[197] Although Protonotariou-Deilaki (1980) believed that all excavated graves in the North Sector belonged to tumuli, many researchers have by now challenged the existence of most of the tumuli (Morou 1989, 107; Papadimitriou A. 1994, 130; 2010, 52; Divari Valakou 1998, 89; Papadimitriou N. 2001a, 20; Milka in Voutsaki et al. 2009b, 168-178; Papadimitriou et al. 2015, 170-171).

'tumuli' will be given. This selection is based on various reasons. First of all, for the SE sector of the Aspis published information is available on houses, on burials and on the skeletal material. Therefore, data from the Aspis are easily comparable with Lerna, Kastraki and Barbouna. Second, the 'tumuli' assemblage, although thoroughly presented in Protonotariou-Deilaki's doctoral dissertation, lacks information on skeletal material[198] making comparisons with other sites problematic. Furthermore, the 'tumuli' assemblage is part of a separate sub-project, which has not been completed yet. As part of this project Deilaki's archive is under study, pottery finds are re-dated, small finds and mortuary data are re-studied and the preserved skeletons are studied (Voutsaki et al. 2007; 2009b). [199] Finally, the picture we have from the other areas of Argos is very fragmentary (Papadimitriou et al. 2015). Houses and graves are not fully or not at all published and skeletal information is totally lacking.

Argos 'tumuli': review

Based on the preliminary analysis of the 'tumuli' data (Milka in Voutsaki et al. 2009b, 168-179), sufficient evidence for the existence of a tumulus can be found in Oikonomou and Gritzani plots, which are part of Deilaki's tumulus A. This tumulus may have been constructed during the early phases of the MH period, or during the later phases in the area of an earlier burial place. A second tumulus may have existed in the northern part of Theodoropoulos plot, in part of Deilaki's tumulus Γ. However, the evidence is not very strong. Most of the graves in this area date to the MH III period (Fig. 187).

The remaining graves should be treated as part of an extended cemetery, different parts of which were in use in different periods, though the main period of use of the cemetery was in MH IIIB. Only few burials date to the early and middle MH (Sarri in Voutsaki et al. 2009b, 157-168).

A certain spatial variation between different parts of the cemetery was observed, but the analysis is seriously hampered by the fragmented nature of the available data. Generally, the data do not support the idea that the 'tumuli' burials belong exclusively to elites. Only nine of the 101 excavated graves were richer in terms of the quantity and/or quality of the grave goods. With the exception of one MH I-II pithos burial, these

[198] Only 25 of the 117 excavated skeletons were located and examined (Triantaphyllou in Voutsaki et al. 2009b, 179-188).

[199] The Argos 'Tumuli' Project is a sub-project of the Middle Helladic Argolid Project and is financed separately by the Institute of Aegean Prehistory and GIA (Voutsaki et. al. 2007; 2009b).

graves date from the later part of the period, when a general increase in wealth across all Argive cemeteries has been observed. The clustering of those graves (five in Theodoropoulos plot, 'tumulus' Γ; three in Kaza plot, 'tumulus' E) may indicate that some groups interred in the cemeteries were of higher status, or that they claimed higher status by adopting more ostentatious practices.

From the study of the few extant skeletons (25 out of 117 excavated) appears that age was a significant criterion determining inclusion to the 'tumuli' cemeteries, while gender may not have been as important. Mortality rates show that certain age groups, e.g. neonates (0-1year) and infants (1-6 years) had restricted or no access to the Argos 'tumuli'. Skeletal lesions related to physiological stress factors, are commonly found. This suggests that ordinary people, and not only elite groups were buried in this burial ground (Triantaphyllou in Voutsaki et al. 2009b, 179-188).

Area	**Place**	**Date**	**Occupation type**	**Source**
The Deiras	The Deiras	MH I-II	Settlement, burials	Deshayes 1966, 15-21, pls.XII-XVIII; Philippa-Touchais & Papadimitriou, 2015
The Aspis	The Aspis	MH II-MH III	Settlement, burials	Vollgraff 1906; 1907; Touchais 1975; 1976; 1978; 1980; 1984; 1990; 1991; Philippa-Touchais & Touchais 2000; 2001; 2002; 2006; 2011; Philippa-Touchais 2002, 2003, 2007, 2010, 2011, 2013
North Sector	Hospital	MH I	Cemetery ('Tumulus' ST)	Protonotariou-Deilaki, 1980
	Hospital	MH III-LH I	Cemetery, settlement	Papadimitriou A., 2010
	Odos Herakleous 86 and Oikopedo Oikonomou	MH I-MH III	Cemetery ('Tumulus' A)	Protonotariou-Deilaki 1974; 1977; 1980
	Odos Herakleous, Oikopedo Tselempatiotou	MH I-MH III	Cemetery ('Tumulus' B)	Protonotariou-Deilaki 1974; 1980

	Odos Herakleous, Oikopedo Theodoropoulos, Prokopiou, Rentas	MH I-LH IB/IIA	Cemetery (‘Tumulus’ Gama)	Protonotariou-Deilaki 1974; 1977; 1980; Papadimitriou N. 2001a
	Odos Herakleous, Oikopedo Kaza	MH IIIA/B	Cemetery (‘Tumulus’ E)	Protonotariou-Deilaki, 1973-74; 1980
	Odos Herakleous, Oikopedo Michalopoulos	MH IIIB	Cemetery (‘Tumulus’ Z)	Protonotariou-Deilaki, 1980
	Odos Niovis, Oikopedo Vlahos	MH IIIB	Cemetery (‘Tumulus’ Delta)	Protonotariou-Deilaki, 1980
	Odos Herakleous, Oikopedo Mitsakou and Kriemadi	MH IIIB	Cemetery (50 graves)	Morou 1989
	Odos Diomidous, Oikopedo Tzafa	MH III-LH I	Settlement, burials	Divari-Valakou 1998
South Sector	Sector δ, School building	MH I-II	Three successive settlement phases. Four MH I graves and one MH II grave.	Daux 1967, 817, 830; Hägg 1974, no. 35
	Quartier Sud	MH II	Settlement and jar with bones.	Courbin 1955, 312; Hägg 1974, no. 37
	South of the Odeion	MH II	At least two superposed rectangular wall systems. Two cist graves on top of the walls.	Daux 1968, 1036-1039
	Odeion Area	MH II	MH pottery.	Bommelaer and Grandjean 1972, 157-161
	The Odeion Area, Quartier Sud	MH II?	3 MH levels the latest with 13	Courbin 1956, 370; Hägg 1974, no. 34

			graves, probably MH II.	
	Cimeterière Sud	MH II/III	5 graves.	Courbin 1954, 176-7; 1955, 312; Hägg 1974, no. 37
	Area near Aphrodision	MH IIIA/LH I	Grave.	Daux 1969, 986; Hägg 1974, 34
	Quartier Sud	MH	2-3 pit graves.	Courbin 1957, 678; Hägg 1974, no. 10
	Theatre	MH	Settlement.	Roux 1957, 638; Hägg 1974, no. 38
	Kypsali Square	MH	MH habitation in test soundings.	Bommelaer, Grandjean and Maffre 1970, 765; Hägg 1974, no. 33

Table 140: MH occupation in Argos (based on Dietz 1991, 281-282)

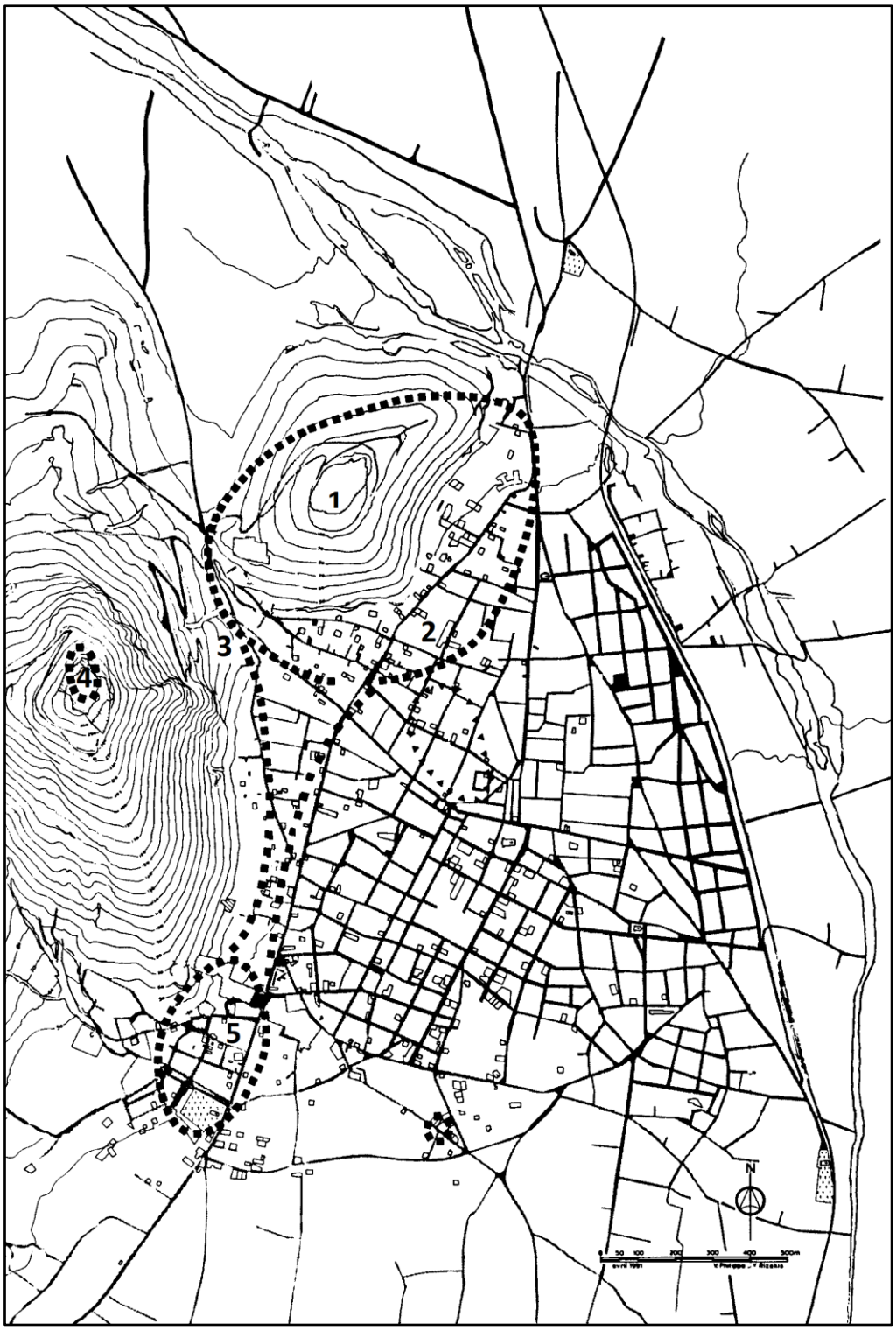

Fig. 186: MH occupation in Argos. 1: The Aspis, 2: North Sector, 3: The Deiras, 4: Larisa, 5: South Sector (from Touchais 1998, fig.18)

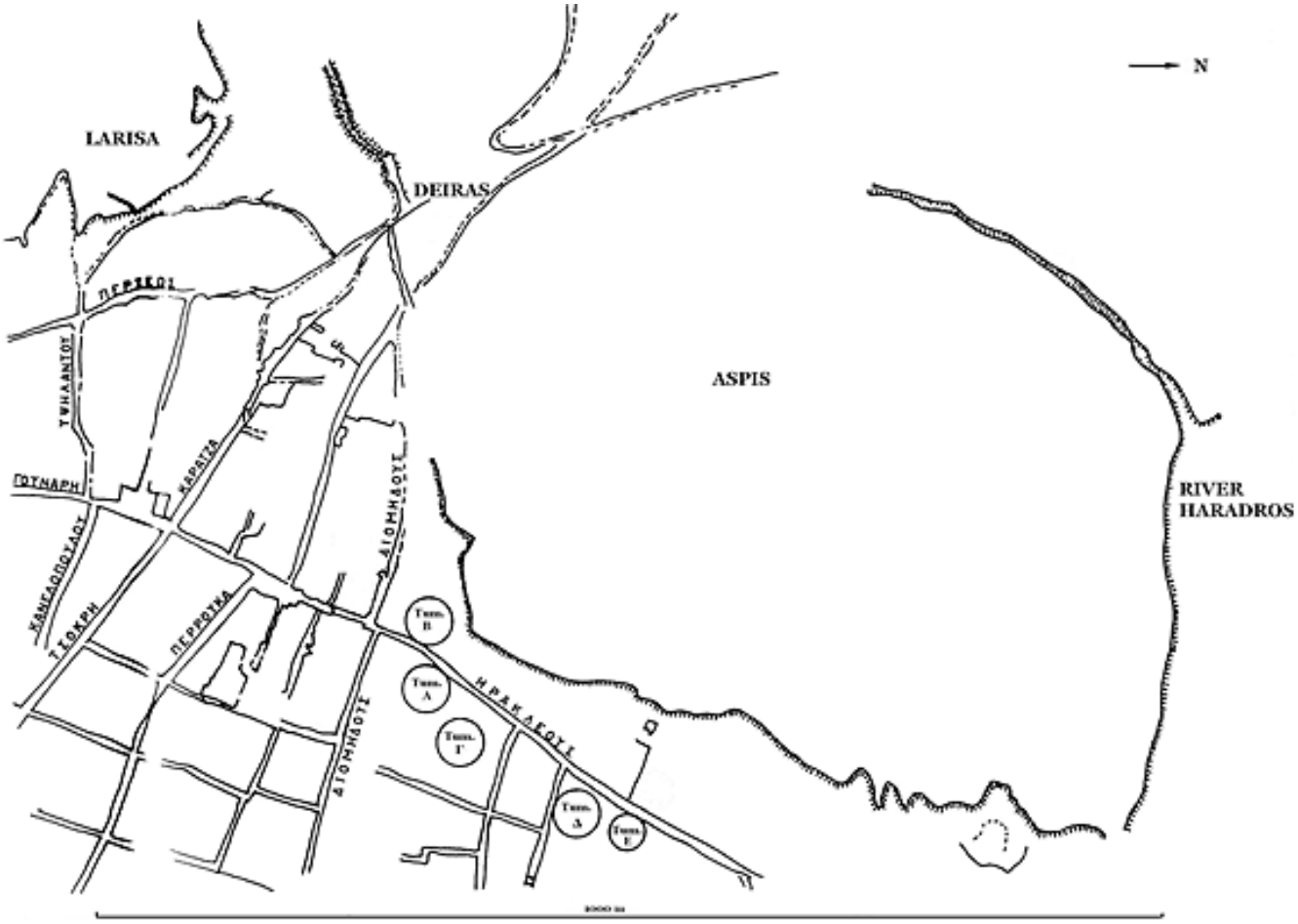

Fig. 187: The location of the five ‘tumuli’ in the city of Argos (based on Protonotariou-Deilaki 1980, general plan 1)

3.1.2 The Aspis

The site of the Aspis is situated in the Prophitis Elias hill at the NW of the city of Argos. The excavations conducted on the hill were broadly concentrated on two sectors, the North and the Southeast (Fig. 188).[200]

North sector[201]

The North sector of the Aspis was first excavated by W. Vollgraff in 1902-1904 (Vollgraff 1906, 1907). Vollgraff found stone foundations of rectangular houses corresponding to two architectural levels, both pre-Mycenaean. The two levels and the corresponding finds, however, were not separated during the excavation (Vollgraff 1906, 43-44). Houses N and O, found in the upper level, had similar rectangular plan and arrangement as House ME in the SE sector (Lambropoulou 1991, 150; Phillipa-Touchais 2010, 792-3; 2011, 33; Wiersma 2013, 116-120). Houses B, C, D (E, F, H?), with slightly different orientation, were found in the lower level (Vollgraff 1907, 141-143). Vollgraff mentioned a child jar burial found partly under a house wall, but no further information about the exact finding spot of the burial is given (Vollgraff 1906, 10-11).

He also suggested the existence of two MH fortification or enclosure walls, an earlier and a later one. Recent excavations (1974–90, 2011) conducted by the French School, under the direction of G. Touchais and A. Philippa-Touchais, brought to light new evidence on the exact dating, course and function of the circuit walls. It has been confirmed that a fortification wall was constructed by the second half of the MH (MH II late-MH IIIA). The exterior enceinte, together with two interior circuit walls and a rearrangement of the settlement gave it a concentric organisation, earlier than previously thought (Philippa-Touchais 2016; Philippa-Touchais et al. Forthcoming).

One trench was later opened in the north area of the hill (squares AI/AJ/AK 32-33) by G. Touchais, on behalf of the French School in Athens. Five levels corresponding to two chronological phases were found here (Touchais 1980, 699). Touchais believes that the MH habitation in that part of the settlement started at the same time as in the SE sector. Next to architectural remains, one grave -TA14 was found at this trench.

[200] The publication of the Aspis is currently under way by G. Touchais and A. Philippa-Touchais. I am extremely grateful to Prof. G. Touchais and Mrs A. Philippa-Touchais for giving me information on the Aspis burials in advance of publication.

[201] The North, East and Central Sectors are included here.

Recently (2006-2008), however, four more graves have been found in the area of Vollgraff's excavations, during cleaning operations conducted by the French School in Athens.[202] Two simple pits, a pit covered with a pithos fragment and a jar burial were located in an open space, inside the inner perivolos. The graves were placed at equal distance from the perivolos. The accidental finding of these graves indicates that probably more graves escaped Vollgraff's attention and that the burial use of this part of the settlement was more intense.

SE sector

Some areas of the SE sector were excavated by W. Vollgraff at the beginning of the 20th century. This sector was systematically examined by the French School in Athens under the direction of G. Touchais (Touchais 1975; 1976; 1978; 1980; 1984; 1990; 1991; Philippa-Touchais & Touchais 2000; 2001; 2002; 2006; 2007). In total, 425 sq.m. were excavated. The excavators separated six layers that represent five chronological phases (Touchais 1978, 798-801; 1998, 76; 2007, 83; Lambropoulou 1991, 160-5; Philippa-Touchais 2002, 3; 2007, 99; 2010, 792-793; 2011, 33). The MH period is represented by phases II-IV (Table 141).

Phase II corresponds to the MH I-II period. This period is mainly represented in the Aspis by pottery, while architectural remains are scanty. It has been suggested (Touchais 1978, 798) that a leveling operation took place by the end of MH II. However, two pit graves probably date from this phase (see section 3.2.2).

Phase III corresponds to the MH IIIA phase. During this period, the houses, mainly apsidal, were arranged in terraces and graves were mainly opened in open spaces between the houses (see section 3.2.3).

Finally, phase IV corresponds to the MH IIIB period. During this period, rectangular houses, sharing some of their walls, replaced the houses of the previous period. The 'perimeter complex', as it is called, consisted of a continuous line of identical buildings surrounding at least half of the settlement. This house complex must have run parallel with the outer enceinte, although no clear remains of it were preserved here. The existence of an early MH (MH II?) strong retaining wall is very possible here (Philippa-Touchais 2016). Some graves were once more opened in free areas outside the houses (see section 3.2.3).

[202] G. Touchais, A. Phillipa-Touchais, personal communication.

Layer	Phase	Date	Comments
5	I	Final Neolithic	--
4b-c	II	MH IB- II	No substantial architectural remains. Only one or two wall sections. A burnt ceramic assemblage of the so-called 'Ghost-house'. Few graves. The inner enclosure and a strong retaining wall were probably built at this phase. Leveling operation at the end of the MH II period.
4a	III	MH IIIA	Apsidal and rectangular houses arranged in terraces and graves.
3-2	IV	MH IIIB	Continuous series of rectangular buildings around the edge of the settlement, successive concentric retaining walls and an exterior circuit wall. Graves.
1	V	Hellenistic	The polygonal circuit wall was built in this period.

Table 141: Excavation layers and occupation phases of the SE sector (based on Touchais 2007; Philippa-Touchais 2010, 792-3; 2011, 33; Philippa-Touchais 2016; Philippa-Touchais et al. Forthcoming)

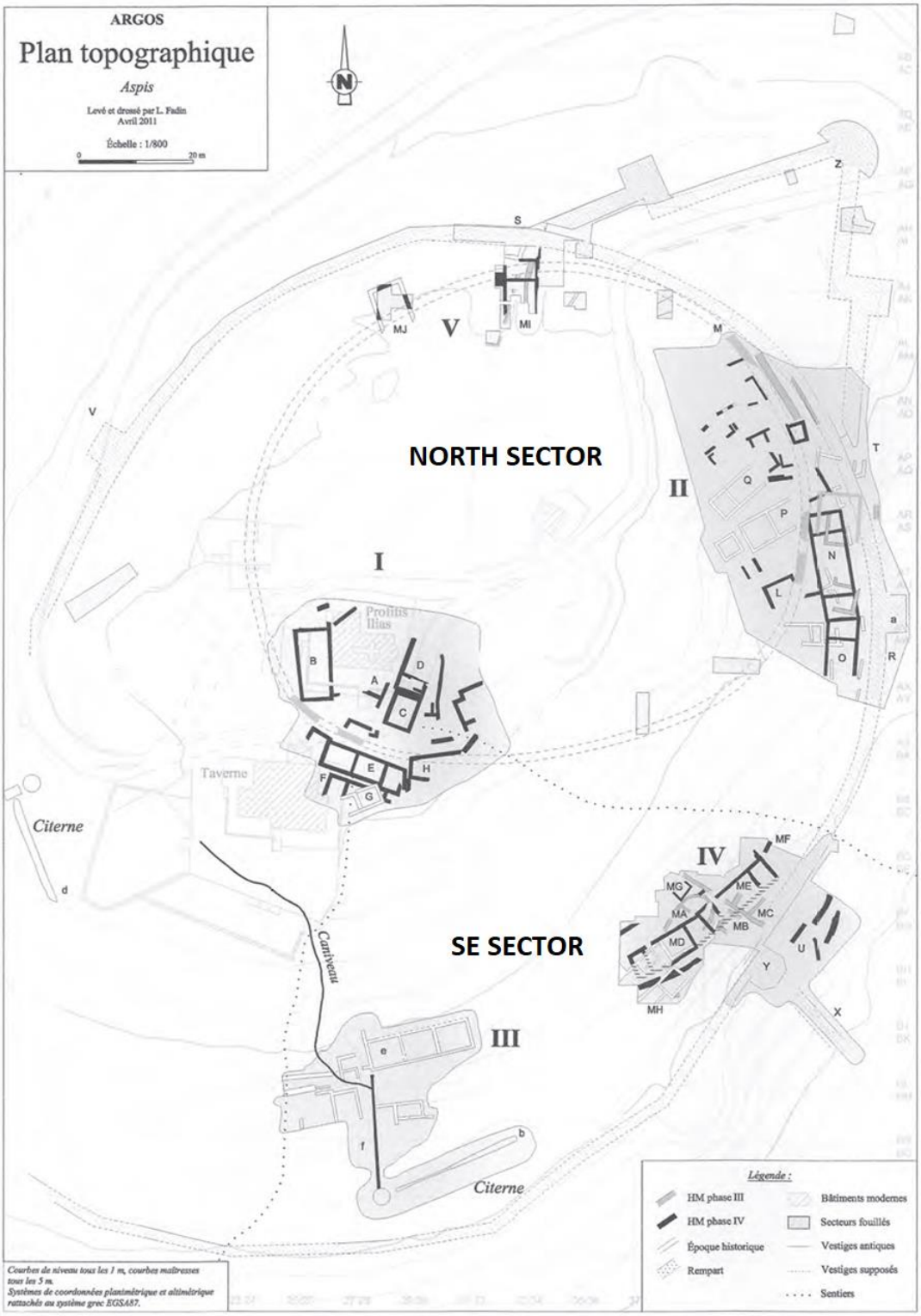

Fig. 188: Topographical plan of the Aspis summit with the vestiges of the old excavations (sectors I-III) and the more recent ones (sectors IV–V) (from Philippa-Touchais 2016, fig. 3).

3.2 THE ASPIS: THE CEMETERY

3.2.1 Introduction

In the SE sector of the Aspis twelve graves have been found (Philippa-Touchais 2011, 33-34; 2013). These graves are designated in the publications by a grave and a locus number e.g. TA1, locus 586. Only the grave numbers will be used in the text here. The six graves found in the N sector are not included here as information about them is either incomplete or they are unpublished. [203]

3.2.2 Dating

The complex stratigraphy of the site and the rarity of diagnostic pottery make dating of the graves difficult and complex (Philippa-Touchais 2013). Moreover, the final publication of MH pottery and stratigraphy has not been completed so far, making observations tentative. Nevertheless, a relative date is given for most of the graves based mainly on the stratigraphic relation between houses and graves (Phillipa-Touchais 2013; Voutsaki et al. 2008) (Table 142).

Accordingly, two of the twelve graves most probably date to the MH I-II period, but an MH IIIA date cannot be excluded either. Nine graves date to the MH III period, mainly from its early part, MH IIIA. For two of them, however, a MH IIIB date is also possible, based on their stratigraphic position and on pottery found in them. Jar burial TA10, on the other hand, could not be dated with precision. The jar was found under the floor of the MH IIIA house MC and it may have been contemporary or earlier than the house. Unfortunately, nor the jar type nor the type of the bowl used to cover its mouth are diagnostic. It should be mentioned that while in Lerna no jar burials later than MH II have been found (see chapter 1.3.2a), in Kastraki at Asine MH III jar burials have also been found (see chapter 2.3.2a).

A radiocarbon (C^{14}) analysis of samples derived from four burials[204], on the other hand, is not without problems, but it helped dating more closely some of the graves (Voutsaki et al., 2008) (Table 142). More particularly, graves TA7-TA8 were found under the MH

[203] Grave TA 14, locus 755 was found in the N sector but its exact location is unknown. Moreover, the skeleton of this grave was not found in the apotheke during the anthropological study of the skeletal material (Triantaphyllou in Philippa-Touchais and Touchais 2002). Therefore, this grave is not included in the analysis here. Also, they are not included here the four new unpublished graves found by G. Touchais and A. Phillipa-Touchais and the grave found by Vollgraff, all at the N Sector.

[204] Three more burials were sampled (TA1, TA5, TA12) but produced erroneous results because treated during conservation (Voutsaki et al., 2008). The sampling and the analysis was carried out as part of Middle Helladic Argolid Project.

IIIA house MC and were thus contemporary with (MH IIIA) or earlier (MH I-II) than the house. The earlier dating is, however, more likely as the eastern part of house MC may date to the MH I-II period and the graves were found in a very low level. The C^{14} results support a MH I or MH II date. Thus, these were probably the earliest graves found in this part of the site.

Grave TA11, on the other hand, was found just outside the N wall of the MH IIIA house MA and it must have been contemporary with it. The C^{14} results are compatible with a MH III date, though a MH II date is also possible.

Finally, grave TA4 dates to the MH IIIA or MH IIIB period based on its stratigraphic position in relation to the adjacent MH IIIA grave TA5 (it was place above it) and to the MH IIIA House MB. According to C^{14} results, however, a MH II or even MH I dating is more probable. A clear case of discrepancy between the relative and the absolute dating is observed here.

We see therefore, that the site of the Aspis was used as a burial place from the earlier MH phases (MH I– II) until the early part of the MH III period. A couple of graves (TA4, TA1) may have been dug during the MH IIIB period but no later graves have been found so far. At the same time the cemeteries at the North Sector of Argos, at the area SE of Aspis drastically expand and their use is intensive until the LH I period.

Grave	Grave type	Relative Date based on stratigraphy	Age BP (C^{14})	Relative Date based on C^{14} results
TA1-locus 586	cist	MH IIIA or MH IIIB (Dietz 1991, 284)	erroneous	--
TA2-locus 590	pit	MH IIIA?	--	--
TA3-locus 515	pit	MH IIIA?	--	--
TA4-locus 591	pit	MH IIIA-B?	3555±35	MH II or MH I
TA5-locus 591b	pit	MH IIIA?	erroneous	--
TA6-locus 592	pit	MH IIIA?	--	--
TA7-locus 468	pit	MH IIIA or MH I-II	3600±35	MH I-II
TA8-locus 529	pit	MH IIIA or MH I-II	3595±35	MH I-II
TA9-locus 582	pit	MH IIIA	---	--
TA10-locus 479	jar	MH	---	--
TA11-locus 598	pit	MH IIIA	3480±35	MH III or MH II
TA12-locus 600	pit	MH IIIA	erroneous	--
TA13-locus 603	pit	MH IIIA	---	--

Table 142: grave dating (after Voutsaki et al. 2008, table 1; Phillipa-Touchais 2013, table 1)

3.2.3 Grave location

In the SE sector of the Aspis 12 graves (13 burials) have been found side by side with houses (Philippa-Touchais 2013) (Fig. 189). Most of them fit well into the expected pattern for MH burials; they were found under house floors (graves TA 1, TA7-TA8, TA10) or, more often, they clustered in areas between the houses. Most of these graves may have been contemporary with the houses (graves TA3, TA4, TA5, TA6, TA9, TA11-12, TA13). As we have already seen, such a pattern is not very common elsewhere, as most of the graves at Lerna and Kastraki post-dated related houses.

However, graves TA7-TA8 and grave TA10 might have been earlier than the related House MC (see section 3.2.3). In that case their association with contemporary houses (if any existed nearby) is unknown. If they were contemporary to a phase of House MC, then they were dug in two different rooms of the house. The two adult burials TA7-TA8 were found in the corner of a room close to a stone construction and to a possible hearth (Philippa-Touchais, personal communication) (Fig. 190). Although the chronological relation between the various features is unclear, the use of the room as cooking area is possible. The association of burials inside houses with cooking areas has been also attested in Lerna (see chapter 1.2.3).

The neonate jar burial TA10 was found in the adjacent room of the same house (Fig. 191). Although the specific function of the room is unknown, the jar was once again placed close to a corner. It should be stressed again, however, that the jar may have been earlier than the room.

Moreover, grave TA1, a cist grave of a probably female adult (actually the only built cist grave in Aspis), pre-dates the MH IIIB House ME, as it was found under its west wall, and was cut through the floor of the MH IIIA apsidal House MA (Fig. 192). Although, according to the excavators (Philippa-Touchais 2013), the grave was contemporary with the apsidal house and a phase of abandonment does not seem to exist between the two building phases, it should be noted that finding an adult cist grave under a house floor is rather unusual (Milka 2010, 349-350). Furthermore, the exact level from which the grave was opened was not possible to be observed, since a wall was constructed on top of it. Having in mind the relation between houses and graves at Lerna and Kastraki, at Asine, it could be suggested that a short, intermediate phase between the two architectural phases might have existed during which the grave was opened. Actually, Dietz (1991, 284) has already suggested that this grave postdated the

apsidal house, because he dated the cup found in the grave in the MH IIIB period. In any case, the grave was cut into the back, apsidal room of the house.

We see therefore that in the Aspis all graves were closely associated with the living space but there was a clear preference to place them outside rather than inside the houses or above abandoned houses. This spatial pattern differs from what we have observed at Lerna and Kastraki at Asine.

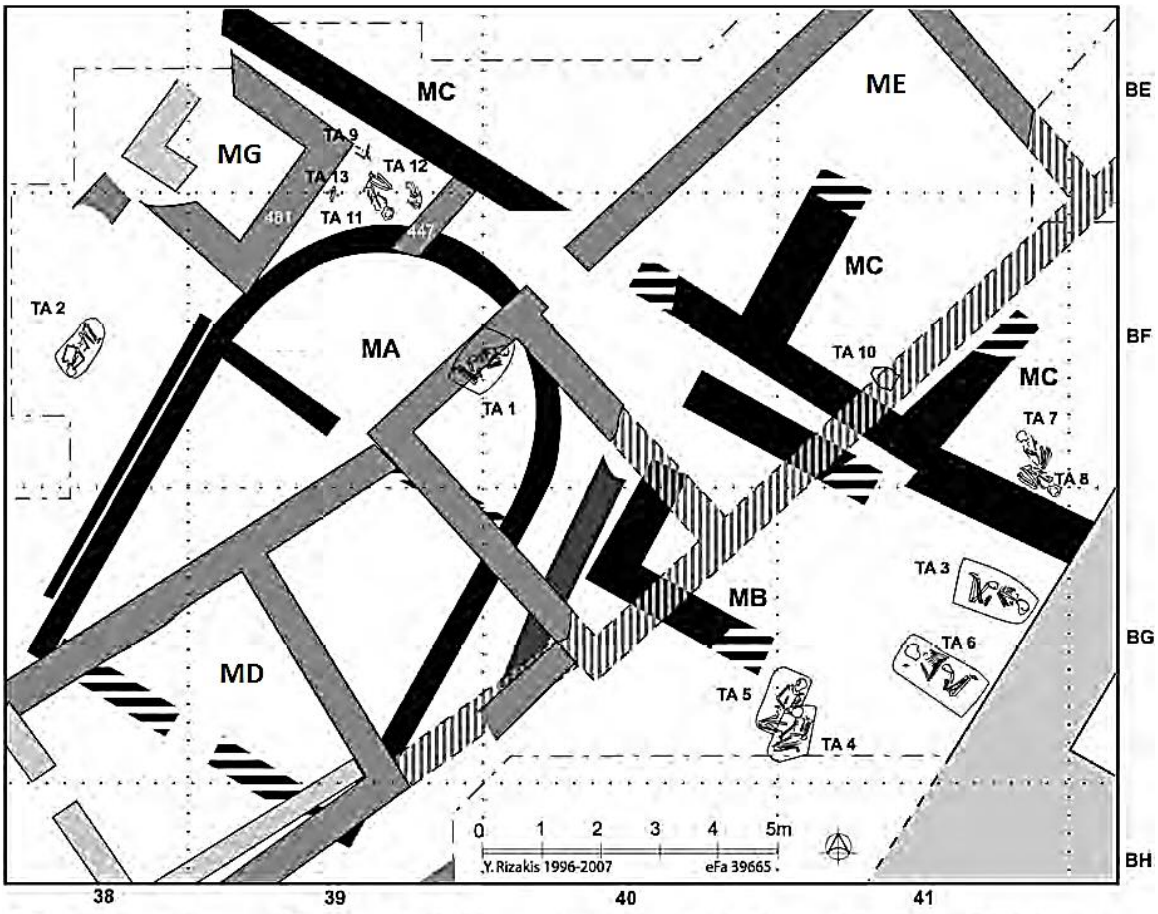

Fig. 189: Location of graves and houses in the SE Sector. In black line MH IIIA phase; in dark grey line MH IIIB phase (after Philippa-Touchais 2013, fig.2)

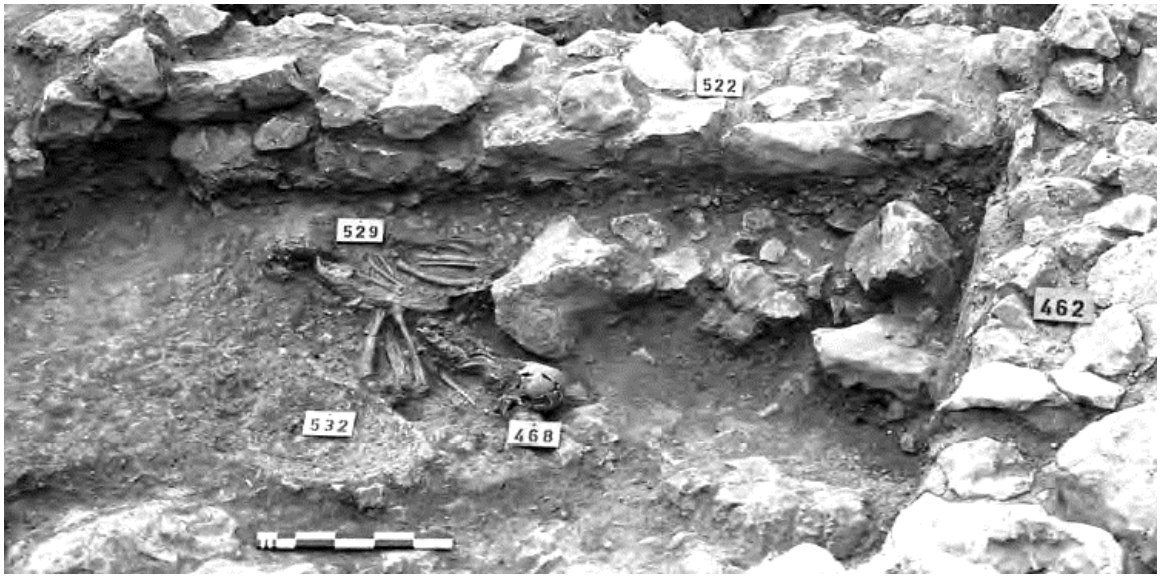

Fig. 190: Graves TA7-TA8 (after Philippa-Touchais 2013, fig.15)

Fig. 191: Grave TA10, jar burial (from Philippa-Touchais 2013, fig.6)

Fig. 192: Grave TA1 (from Philippa-Touchais 2013, fig.4)

3.2.4 Spatial organization

Having examined the location of the graves in relation with nearby houses and the stratigraphic relation of the two, let me now turn to the orientation of the graves and their spatial clustering.

a. Grave orientation

Most of the graves in the Aspis were orientated towards the E-W and the N-S axis, they were thus all aligned to nearby house walls (Philippa-Touchais 2013). The same alignment between houses and graves was also noticed in Lerna. We can conclude therefore, that grave construction followed the general planning of the settlement.

b. Burial groups

Most of the graves in the Aspis were located close together forming groups in the open spaces between the houses (Milka in Voutsaki et al. 2005, 37-38; Philippa-Touchais 2013). Two such groups were separated in the SE sector (Fig. 193):

Group A

This group of four graves (TA3, TA4, TA5, TA6) was situated in a terrace at the SE edge of the settlement (Fig. 193). The graves were dug into an open space between the MH IIIA houses (squares BF/BG 41). Some of them were placed closer together. Grave TA4 for example was placed above grave TA5. The two skeletons have the same orientation (N-S). Moreover, graves TA3 and TA6 were placed closer together. They were orientated in the E-W axis but the skeletons skulls were orientated in opposite directions.

Three graves of this group, TA3, TA5, TA6, probably date to the MH IIIA period, while grave TA4 may date to the MH IIIA or the MH IIIB period, based on stratigraphy, or to the MH I-II according to C^{14} results. All of them are pits. Interestingly, only juveniles and adults were buried in this group (with the exception of a neonate bone found in grave TA5 together with the adult skeleton).

Group B

This group of three graves (TA9, TA11-12, TA13) was situated in a small open space NW of the MH IIIA apsidal House MA (squares BE/BF 39) (Fig. 193). House MC, also MH IIIA, is located just to the N-NE of the graves. Grave TA9 was found higher than the other graves of this group and it is probably slightly later. However, all three date to the MH IIIA period according to stratigraphy. Based on C^{14} burial TA11 may as well be MH II. Again, all graves are pits. Graves TA9 and TA11-TA12 were oriented in the same SE-NW axis.

The age composition of group B is different from group A. Here, one adult (TA11) and two neonates (TA9, TA12) were buried. The adult was buried together with a neonate. The preservation of skeleton TA13 was very bad and estimation of age was not possible.

In addition to the two grave groups, graves TA7 and TA8 were found very close together under the floor of the same room in House MC. Both were female-adult burials, dating to the same period, probably MH I-II. They were orientated in the same E-W axis but with skulls in opposite directions. It is possible however that these two graves were a simultaneous double burial (see below section 3.3.3a).

The remaining three graves-TA1, TA2, TA10 do not cluster together.

To conclude, graves in the Aspis tend to cluster together in free areas between the houses. Age differentiation has been observed between the two designated groups. Juveniles and adults were buried in Group A, while more sub-adults seem to have been buried in Group B.

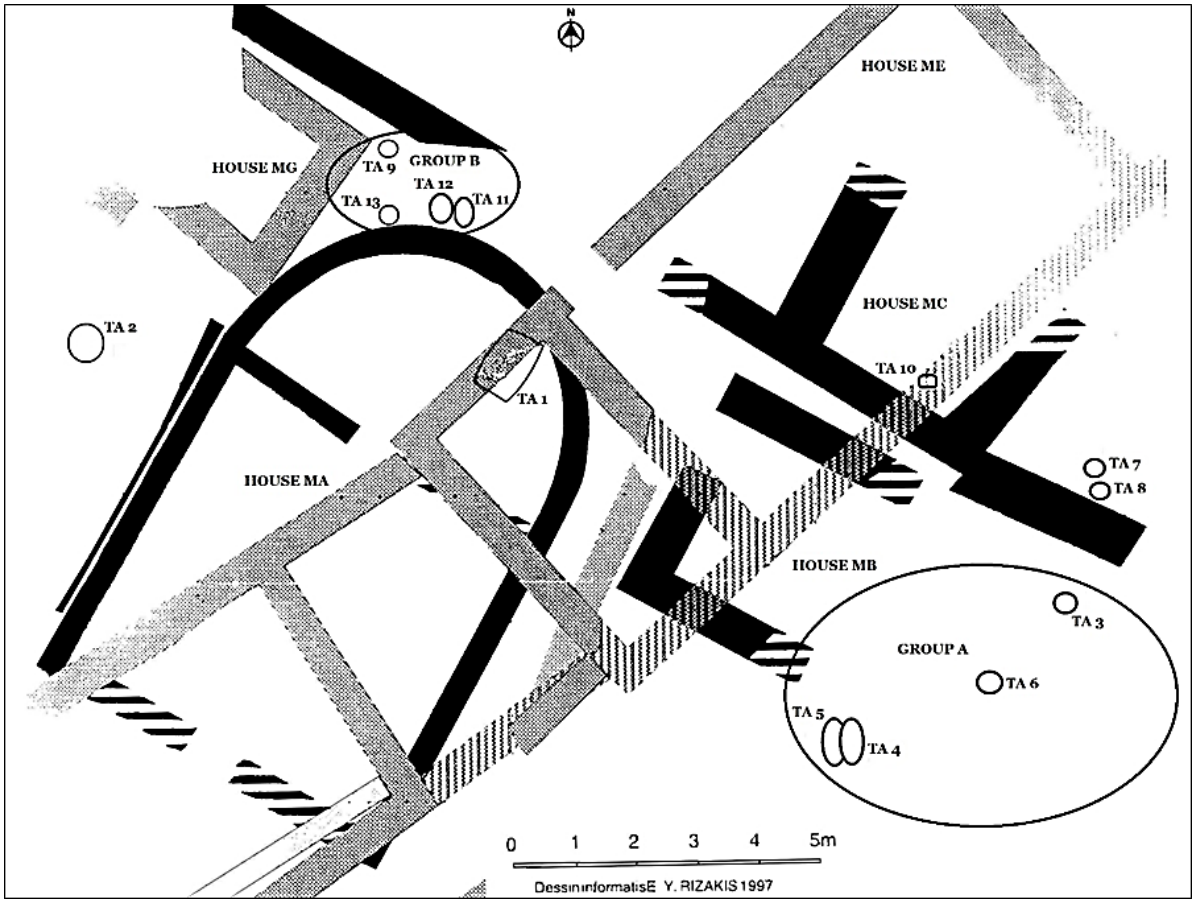

Fig. 193: Grave groups (after Philippa-Touchais 1998, fig.8)

3.3 THE ASPIS: GRAVE ANALYSIS

3.3.1 Skeletons

14 skeletons or parts of skeletons derived from the 12 graves (Triantaphyllou in Philippa-Touchais & Touchais, 2002; Triantaphyllou et. al, 2008b). The skeletons have the same numbering with the graves where they were found.

The preservation of the skeletal material was usually poor. The preserved skeletons were studied by S. Triantaphyllou in 2001. According to her study, the skeletons belong to eight adults, mainly YA and PA, one juvenile and three sub-adults, all of which neonates (Table 143).[205] Additionally, an arm bone of a neonate was found together with the adult burial TA5. Concerning gender, one male and six female adults have been found in the SE sector of the Aspis (Table 144).

Adults and females thus clearly predominate (Milka in Voutsaki et al. 2005, 37-38; Philippa-Touchais 2013). [206] It should be kept in mind, however, that the 14 skeletons were found in a restricted area of the settlement making conclusions about age and gender inclusion in the burial sample tentative. The study of the new skeletal material derived from the North Sector may change our view about the Aspis burials.

At the same time, mainly adults were also buried in the extensive cemeteries at the North Sector of Argos, SE of the Aspis (Triantaphyllou, in Voutsaki et al. 2009, 179-188).[207] On the contrary, inside the settlement of Lerna adults and sub-adults were almost equally represented during the MH II and MH III periods (see chapter 1.3.1). At Kastraki on the other hand, sub-adults predominate, while spatial distinctions of adults and sub-adults has been observed (see chapter 2.3.1). At both sites, Lerna and Kastraki, men slightly predominate.

[205] Only few cranial fragments of skeleton TA13 were preserved. The estimation of sex and age was not possible (Triantaphyllou in Philippa-Touchais & Touchais, 2002).

[206] However, the possibility cannot be excluded that the two unsexed skeletons were male.

[207] It should be kept in mind that only 25 skeletons from the 117 excavated by Protonotariou-Deilaki were located and studied.

Age category	Approximate biological age	Number of skeletons
Neonate	0-1	**4**
Infant	1-6	**0**
Child	6-12	**0**
Juvenile	12-18	**1**
Young adult (YA)	18-30	**2**
Prime adult (PA)	30-40	**2**
Mature adult (MA)	40-50	**1**
Old adult (OA)	50+	**0**
Adult	18+	**3**
Unknown	-	**1**
	Total	**14**

Table 143: Age categories (after Triantaphyllou et al. 2008b, table 1)

Age category	Male	Female	Unknown	Total
Juvenile	-	-	1	**1**
YA	0	2	0	**2**
PA	1	2	0	**3**
MA	0	1	0	**1**
OA	0	0	0	**0**
Adult	-	1	1	**2**
Total	**1**	**6**		

Table 144: Gender distribution in age categories (after Triantaphyllou et al. 2008b, table 1)

Health status and diet

If we now turn to health status (Triantaphyllou et. al., 2008b, 633), the osteological analysis showed high levels of musculo-skeletal markers, resulting from heavy occupation and, furthermore, high incidence of stress factors, resulting from dietary or pathogenic stress during developmental years. Those results are consistent with those

from Lerna and from the Argos 'tumuli' (Triantaphyllou, in Voutsaki et. al. 2006, 95-102; Triantaphyllou, in Voutsaki et al. 2009, 179-188; Voutsaki et. al. 2013).

Recently, a stable isotope analysis of the human bones was also conducted (Triantaphyllou et. al., 2008b).[208] The analysis revealed some interesting results concerning diet. Overall, cereals and legumes seem to have been the main components of diet. Two individuals, however, show heavier reliance on animal protein (meat and dairy products). These were T4 and T5, which were buried one upon the other, suggesting that they might have been related. The similar stable isotope results support such a hypothesis. Gender does not seem to be important here as T5 was male and T4 was female. TA5 dates probably to the MH IIIA according to stratigraphy, while there is a discrepancy between the C^{14} date (MH I-II) and the stratigraphic date (MH IIIA-B) of TA4.

Differentiation was also revealed for skeleton TA1, a mature female buried in the only cist found in the SE sector of the Aspis. This individual seems to have regularly consumed aquatic animals but also animal protein derived from terrestrial herbivores e.g. pigs. The grave dates to the MH IIIA or IIIB period.

Finally, the isotopic signal of the MH IIIA TA3, a juvenile between 14-15 years old, showed heavy reliance on plant protein foodstuffs. The same holds true for three juveniles from Lerna (Triantaphyllou et. al., 2008a). It can be thus tentatively suggested, on the basis of a very restricted sample, that during childhood diet was mainly plant based.

To sum up, the demographic profile of Aspis burials differs from the other Argive MH settlements. This discrepancy, however, may be due to small sample size and the restricted area from which it derived. Concerning health status and diet, the population of Aspis does not differ from the other studied assemblages.

[208] Bone samples were taken from seven skeletons (TA 1-7). The sampling and the analysis of the results was part of Middle Helladic Argolid Project.

3.3.2 Grave types and furnishings

The main question to be addressed here is whether different grave types were used for different sections of the population, e.g. adults-subadults, men-women, burial groups, although the small sample size sets once more restrictions.

In general, different types of pits were primarily used in the Aspis alongside with one jar burial and one cist grave.

a. Burial jars: burials inside storage vessels.

One jar burial has been found in the South Sector of the Aspis (TA10) (Fig. 200). A large (H: 34.7cm, D: 25.5cm) coarse jar[209] lying on its side was used as a burial container. The jar was found under the floor of the MH IIIA House MC. It might have been contemporary or earlier than the house. In other sites, neonate jar burials found inside the settlements date mainly from the early part of the MH period. At Kastraki, however, MH III jar burials have also been found (see chapter 2.3.2a).

Age and gender

A neonate (0-6m) was buried in the jar. Neonates, infants and young children were sporadically buried in jars also in Lerna and Kastraki.

Furnishings

The mouth of the jar was covered with the broken half of a bowl.[210]

Marker

No grave marker was found.

To conclude, burial jars were sporadically used for young sub-adult burials perhaps into the MH III period.

b. Pit graves: burials in simple earth dug pits.

Ten of the twelve graves found in the Aspis were pits. This grave type clearly predominates. Very often, however, no traces of the pit were preserved and the skeleton was the first evidence for the existence of a grave (graves TA7, TA8, TA9, TA11-TA12). These pits are usually referred as simple inhumations (Philippa-Touchais, 2013). From the remaining pits, three were rectangular (TA2, TA5, TA6) (Fig. 194), two trapezoidal (TA3, TA4) (Fig. 195) and one oval (TA13). The rectangular pit TA2

[209] Inv.No: 75/1276-2
[210] Inv.No: 75/1276-1

was cut into the rock and it closely resembled a cist. We see therefore that no standardization in the construction of the pits existed (Philippa-Touchais, 2013).

Pits were used throughout the settlement occupation.

Age and gender

Eleven[211] individuals were buried in pit graves. Seven of them were adults, one was juvenile and two were neonates (Table 145). Pits were thus used for all age categories and both sexes.

Sub-adults	2		
Juveniles	1	**Male:** -	**Female:** -
Adults	7	**Male:** 1	**Female:** 4

Table 145: age and gender of skeletons found in pit graves

Furnishings

Floors have been found in four pit graves (TA6, TA9, TA11, TA13). Every floor was constructed in a different way: TA6 was made of gravel (Fig. 196), TA9 of some kind of white material, TA11 of white pebbles and soil and TA13 of sea pebbles. Again, a subtle variation on the grave construction is attested (Philippa-Touchais, 2013).

Two of the pits were covered. A stone slab was used in grave TA 4 (Fig. 197), and a pithos fragment[212] in grave TA11-TA12 (Fig. 198). The pithos fragment was further covered with yellow clay. The existence of a cover above grave TA13 is uncertain; at a higher level above the grave a layer of reddish clay was found. Above the clay layer, a second layer of stones in rectangular shape existed (Philippa-Touchais, personal communication).

Finally, twice (TA5, TA6) a yellow thin clay frame (‘plesia’) was found around the pit (Philippa-Touchais, 2013) (Fig. 196, 199).

Marker

No grave markers have been found.

We see therefore that subtle differentiation concerning pit construction is observed and standardization is lacking. The frequency of pits is higher in the Aspis compared to Lerna and Kastraki, but the Aspis pits show greater variability. It should be kept in mind

[211] Or twelve if we also count the neonate right humerus found in grave TA5.

[212] Two of the burials found recently in the North Sector were also covered with pithos fragments (A. Philippa-Touchais, personal communication).

however that excavations in the Aspis are recent and the descriptions of the graves much more accurate than in other older excavations, where pit graves were not usually described in great detail. At the nearby cemeteries of the North Sector of Argos pits and cists were equally used during the MH III period.

Fig. 194: Rectangular pit grave TA2 (from Philippa-Touchais 2013, fig.5).

Fig. 195: trapezoidal pit grave TA4 (from Philippa-Touchais 2013, fig.11).

Fig. 196: Gravel floor and yellow clay frame in grave TA6 (from Philippa-Touchais 2013, fig.14).

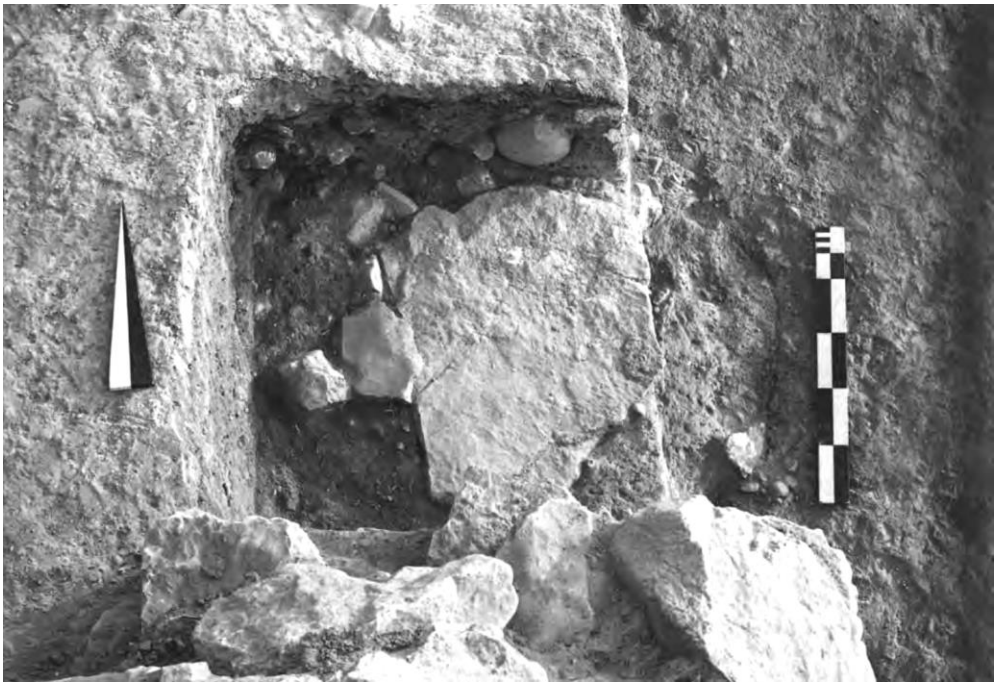

Fig. 197: Stone slab cover over grave TA4 (from Philippa-Touchais 2013, fig.10).

Fig. 198: Pithos fragment covering grave TA11-TA12 (from Philippa-Touchais 2013, fig.7).

Fig. 199: Yellow clay frame in grave TA5 (from Philippa-Touchais 2013, fig.12).

c. Cist graves: graves formed with stones or other materials, usually rectangular. Only one cist grave has been found in the Aspis (TA1). It was constructed with horizontally placed rows of stones (built cist). It probably dates to the MH IIIA.[213] This type of cist was sporadically used at Lerna during the MH III/LH I-LH I period.

Age and gender

A MA probably female was buried in the cist. Interestingly, this was the oldest individual found so far in Aspis.

Furnishings

No floor, cover or any other furnishing was found.

Marker

No marker was found.

In contrast with the Aspis, where pits predominate, in Lerna and Kastraki the use of cists steadily increased over time (see chapter 1.3.2c, 2.3.2c). During the MH III period they became very common, especially for adult burials. In accordance, the only cist in the Aspis does belong to fairly late period, as was to be expected.

[213] According to Dietz MH IIIB (1991, 284).

3.3.3 Mode of disposal

Three aspects of the burials will be analysed in this section: single versus multiple burials, primary versus secondary treatment and body position and orientation.

a. Single and multiple burials

All burials found in the Aspis were inhumations. The majority of them were single burials. However, graves TA11-TA12 (MH IIIA) were covered with the same fragment of pithos and should be considered as a double burial of an adult and a neonate. The burials belong to grave group B. In Lerna double burials often consisted of adult-neonate combination.

In addition, burials TA7 and TA8 (MH IIIA or MH I-II) were found very close together and they were probably buried in the same pit. Nevertheless, it is not clear if the two individuals were buried at the same time. These burials do not belong to any of the designated groups.

Moreover, grave TA4 (MH IIIA-B?) was opened above grave TA5 (MH IIIA?) at a later time but it is difficult to say whether that was a conscious decision (Philippa-Touchais, 2013). In grave TA5 a neonate humerus was found together with the skeleton of the PA male during the anthropological study. Although the existence of this bone in the grave may have been accidental, it is interesting that, once again, some neonate bones were related with adult skeletons. Graves TA4 and TA5 belong to grave group A.

To conclude, double burials were exceptional at the Aspis and the same holds true for Lerna and Kastraki. The practice of single burials indicates that the individual status of the deceased was emphasized, at least during the time of the interment. On the other hand, at the Aspis relatively often some burials were placed very close together, implying that the deceased may have been related.

b. Secondary treatment

The secondary treatment of the human skeleton is informative not only of burial ideology and ritual, but also of kin relations between the skeletons and of the creation and maintenance of memory.

However, secondary burials or intentionally disturbed skeletons have not been found in the Aspis. The only evidence of a possible secondary treatment of a skeleton is the disarticulated neonate bone found together with an adult burial (grave TA5).

Typical secondary burials are also missing from Kastraki, while at Lerna are attested once (see chapter 2.3.3b and chapter 1.3.3b). At both sites however, many cases of loose human bones have been found, while sometimes skeletal parts are missing from otherwise undisturbed skeletons. In all these cases secondary treatment of the skeleton may have caused the fragmentary preservation of the skeletons.

At the extramural cemeteries in the North Sector of Argos, on the other hand, some secondary burials have been found, but these burials are later than the ones on the Aspis.

c. Body position and orientation

Body position and orientation of the skeleton inside the grave can be informative of age and gender differentiation. In the Aspis detailed descriptions of all the well preserved skeletons are available (Philippa-Touchais, 2013).

i. body position

All the deceased in the Aspis were buried in contracted position.[214] Most of them were contracted on their side, rather on their back (Table 146). The age of the deceased does not seem to influence the body position as both adults and sub adults were buried contracted on the side or on their back (Philippa-Touchais, 2013).

Gender on the other hand, seems to have been more important, as the only male individual was buried on his right side, while most of the females (4) were buried on their left side (Philippa-Touchais, 2013). The same preference on burying women on their left side and men on their right side was also mentioned in Lerna (see chapter 1.3.3c) (Nordquist 1979; Ruppenstein, 2010).

[214] Information is not available for skeletons TA10 and TA13.

Lower limbs position	Upper body position	Side	Total
CONTRACTED	**On side:** 7	Left: 3	**11 skeletons**
		Right: 4	
		Unknown: 0	
	On back: 4	Left: 3	
		Right: 1	
		Unknown: 0	
UNKNOWN	**Unknown:** 2		**2 skeletons**
Total			**13 skeletons**

Table 146: body position

ii. arm position

The arm position of six skeletons is known. All of them were juvenile-adults. Our goal here is to examine if arm position was standardised and further, if any pattern emerges regarding age, gender or group differentiation.

A. Upper body on back

The arm position of just one skeleton is known (TA2). Both arms were folded across waist (position A5). The skeleton was that of an adult female. Only adults and juveniles were buried in this position also in Lerna (see chapter 1.3.3c).

B. Upper body on side

The arm position of five skeletons buried on their side is known (TA1, TA3, TA4, TA5, TA6). The arms were placed bended in front of chest/face in all skeletons (position B5). The skeletons belong to three adult females, an adult male and a juvenile. On the contrary, in Lerna mainly males were buried in this position (see chapter 1.3.3c).

We see therefore that arm position in contracted skeletons was standardized in the Aspis. Age and gender of the deceased does not seem to have been an important criterion for the placement of arms. It should be kept in mind however, that we are missing information on arm position from sub-adult burials.

iii. body orientation

Body orientation, or to be more accurate the orientation of the head, was recorded for 11 skeletons. In the remaining two skeletons (TA10, TA13) it was not possible to ascertain body orientation due to insufficient preservation.

As we have already seen, the E-W axis (7) was preferred more often than the N-S (4). The skulls of skeletons orientated to E-W axis were placed equally to the E and to the W. On the other hand, the skulls of skeletons orientated to N-S axis were usually placed to N (3) than to S (1).

It can generally be said that only adults were buried along the N-S axis (Philippa-Touchais, 2013). No other pattern concerning age or sex grades emerges.

3.4 THE ASPIS: THE FINDS

Having analysed information on graves and skeletons, let me now turn to burial offerings.

3.4.1 Introduction

In the Aspis only pottery has been found in association with the graves. Other objects and faunal remains are absent. The offering repertoire is thus restricted.

3.4.2 Pottery

Six vessels were found in five graves (41.6% of the graves) (Table 147). They all date to the MH III period.

A bowl[215] was used to cover the mouth of a burial jar[216] and not as a proper offering (Fig. 200). The remaining vessels are treated as proper offerings, intentionally deposited in the graves.

Once, two cups were deposited together in a neonate burial (TA12). The remaining three vessels were deposited single in female burials (TA1, TA2, TA4). Pottery was thus mainly found in adult burials but sub-adults were not excluded. Moreover, the only male burial did not receive any offering.

If we examine spatial distribution, graves containing pottery were found across the excavated part of the settlement, both in the grave groups (TA4-Group A, TA12-Group B) and isolated (TA1, TA2). Finally, concerning grave type, pottery was found in the most carefully constructed graves (Philippa-Touchais, 2013), although the differences in the mode of construction are small.

In total, 1/3 of the graves in the Aspis contained pottery and the same holds true for the MH III graves in Katsraki at Asine (see chapter 2.4.2). In Lerna during the MH III period 17% of the graves contained pottery (see chapter 1.4.2). Finally, while the percentage of graves containing pottery is similar in the cemeteries at the North Sector of Argos, the quantity of vessels in each grave is considerably higher (Milka in Voutsaki et al. 2009b, 178).

[215] Inv.No: 75/1276-1
[216] Inv.No: 75/1276-2

Grave No	Catalogue No	Date	Shape	Ware
TA10	75/1276-1	MH IIIA	bowl	MP
TA1	77/248-1	MH IIIA or MH IIIB (Dietz)	cup	YM
TA11-TA12	77/312-1	MH IIIA	cup	Red burnished
TA11-TA12	77/312-2	MH IIIA	cup	MP
TA2	77/212-2, 77/212-1	MH IIIA or B	jug with a lid	red burnished/ lid: yellow clay
TA4	77/278-1	MHIIIB or A	pithos	Coarse

Table 147: Pottery offerings

Fig. 200: Bowl cover in jar burial TA10 (from Philippa-Touchais 2013, fig. 21).

a. Shapes

i. cups

Cups (3) were the most common vessels placed in the graves. Two of them, a MP and a coarse red burnished one-handled cup, were deposited together in a neonate burial (TA12) (Fig. 201). The third, a YM one-handled cup, was found in a female burial (TA1) (Fig. 202). All three date to the MH III period.

ii. jugs

A coarse red burnished jug with a lid was found in a female burial dating to the MH III period (TA2) (Fig. 203).

iii. jars

A coarse pithos fragment was found in a female burial dating also to the MH III period (TA4).

We see thus that the jug-cup combination was not attested in the Aspis.

Fig. 201: cups from grave TA12 (photo by the author).

Fig. 202: cup from grave TA1 (photo by the author).

Fig. 203: Jug with lid from grave TA2 (photo by the author).

b. Use categories

i. eating/drinking

The three cups belong to this use category, which is the most common.

iii. pouring

The jug was used or could have been used for pouring liquids.

iv. storing

The pithos fragment belonged to a storing vessel. The pithos, however, was not used for storing purposes in the grave as only a fragment of it was deposited with the burial.

Eating/drinking vessels predominate in all sites.

c. Size

With the exception of the pithos fragment, the remaining vessels were small.

d. Wares

Both fine (2 vessels) and coarse (3 vessels) fabrics were used for the construction of the vessels. Interestingly, coarse fabrics seem to predominate in the Aspis despite the late dating of the graves. Imported vessels have not been found in the graves.

In the settlement deposits pottery is mostly of local manufacture. Imported vessels are also numerous (c. 20% of the whole assemblage) but from the earliest phase. They include, apart from coarse Aeginetan, a considerable number of other Aeginetan wares (mostly Matt-painted), Lustrous Decorated or Minoanizing wares and very few Cycladic vessels (N. Papadimitriou et al., 2015, 163).

e. Preservation

i. intact or broken but whole preserved: the two fine ware vessels were chipped but the whole pot was preserved. Chipping indicates that the vessels were used for some time before they were deposited in the grave.

ii. broken, sherds missing: a coarse vessel was broken and some sherds of the base and the body were missing. The missing sherds were either lost during the excavation, or the vessel was intentionally broken during the funeral and some sherds were kept by the living.

iii. broken, more than 1/3 missing: twice only a part of the vessel was found in the grave. In these cases, either a part of an already broken vessel was deposited or the vessels were intentionally broken during the funeral and only a part of them was placed with the deceased.

iv. broken, single sherd preserved: no single sherds are mentioned from the fill of the graves.

f. Position

The placement of three vessels in relation to the body is known.

i. around skull: twice (TA1, TA2) the vessels were deposited close to skull.

ii. between chest and pelvis: once (TA4), the broken vessel was placed above the left hand of the deceased.
iii. close to legs: no vessels have been found in this area.
iv. generally in the grave: the placement of the two cups in grave TA11-TA12 in relation to the skeleton is unknown.
v. outside or above the grave: no vessels have been found.

Overall, the pottery sample from the Aspis graves, although small, follows the general pattern revealed from the other MH burials in the Argolid. Mainly small, eating and drinking vessels were deposited, whole or broken, close to skulls. However, in contrast with other intramural and extramural cemeteries coarse fabrics predominate, and the repertoire and the quantity of pottery is restricted.

3.4.3 Non pottery finds

None has been found in the graves, strengthening the homogeneity of the assemblage. Interestingly, the few non-ceramic artefacts and implements from the settlement date to the MH I-II period (N. Papadimitriou et al., 2015, 163).

3.5 THE ASPIS: CONCLUDING DISCUSSION

Although the burial sample from the Aspis is small and represents only a part of the settlement, some tentative observations concerning social structure are possible. First I will discuss aspects of age and gender differentiation, I will then turn to wealth and elaboration and I will close the discussion by examining the importance of kinship. Then, I will examine change though time in all the above mentioned aspects. Finally, throughout the discussion, emphasis will be given in particular characteristics and developments taking place in Aspis.

3.5.1 Age differentiation

Overall, more adults have been buried in the SE sector of the settlement, which is rather strange for intramural MH III graves. It can thus be suggested that different areas of the settlement were used for the burials of adults and sub-adults in general or for different age categories.

Indeed, there seems to be a differentiation in the age composition of the two burial groups separated in the study area. Group A consists of individuals older than 15 years old, while in group B mainly neonates were buried (the only adult of this group was buried together with a neonate). Spatial differentiation of age groups was also observed at Kastraki in Asine, while in Lerna such differentiation was only observed from the transitional MH III/LH I until the LH I period (see chapter 2.4.4b and chapter 1.2.4b).

Some instances of age differentiation were also noted in the grave types used. The only jar burial belonged to a neonate, while the oldest adult was buried in the only cist found in the SE Sector.

Stable isotope analysis gives some support to age differentiation. The isotopic signature of the juvenile buried in grave TA3 slightly differs from the rest. This might have been the result of heavy reliance on plant protein foodstuffs during early/middle childhood. It can thus be suggested that a differentiation in the diet between the age groups existed. On the other hand, grave offerings and burial treatment do not reflect age differentiation. To conclude, age seems to have been a criterion structuring social life in Aspis but age divisions were not absolute. In spite the restrictions due to sample size, other aspects of the identity of the deceased were probably also expressed. Gender is the next to be examined here.

3.5.2 Gender differentiation

Overall, mainly females have been found in this part of the settlement. The predominance of women may indicate gender differentiation in the spatial arrangement of the graves. As only a part of the settlement has been systematically excavated this remains hypothetical. On the other hand, this pattern may indicate a preference for burying more women in the settlement and more men in the extramural cemeteries but this cannot be ascertained as anthropological information on only a few skeletons from Argos is available. Nevertheless, the studied adult skeletons (18) from Argos belong equally to males (9) and females (8) (Triantaphyllou in Voutsaki et. al. 2009b, 182).

Moreover, body position gives support to differential treatment, as most of the females (4 out of 5) were buried on their left side, while the only positively male skeleton was lying on his right side. In addition, although the sample is small, offerings have only been found in female burials and the only cist belonged to a female. However, gender differentiation was not noticed in neither health status nor diet.

It can thus be tentatively suggested, on the base of restricted data, that gender was an important though not absolute criterion of differentiation, at least in the mortuary sphere. Gender position was probably mediated by age and by other facets of the personal identities. Kinship was most probably important, while personal status and 'wealth' may also have played a role.

3.5.3 Elaboration, 'wealth', status

In general, differentiation between individuals in terms of 'wealth' was minimal in Aspis, at least in the mortuary sphere. In the domestic sphere, the abundance of high-quality imported wares in the earliest phases of the Aspis (MH I–II), together with the few imported valuables (gold pendant, stone vases) and the recent discovery of a concentration of storage pithoi in East Sector, may provide evidence of emerging social differentiation (N. Papadimitriou et al., 2015, 177; Philippa-Touchais & Touchais 2011, 214-215; 2016).

To start with, elaborate grave types, such as large cists and shaft graves, have not been found. Even cists of moderate size and construction are exceptional. Some subtle differences in the construction of pits were noticed but none of them can be characterised elaborate.

Moreover, burial offerings, which are usually used to support 'wealth' differences, are very poor in the Aspis graves. Large quantities of pottery, imports and metal objects are totally missing.

Pottery, however, when found, was placed in the most carefully constructed graves. For example, a vessel was found in the only cist found until now in the settlement (TA1), where the oldest individual was buried. It should be stressed again, however, that all graves found in the Aspis were very simple in comparison to graves found in other sites.

Some evidence for differential diet of a few individuals is given by the stable isotope analysis. As we have seen, the isotopic values of TA1, an adult female, slightly differ suggesting the regularly consumption of aquatic animals (fish and/or water birds) and of terrestrial herbivores. On the other hand, the isotopic signal of adult burials TA4 and TA5, placed one upon the other, suggests a heavier reliance on animal protein, such as meat and dairy products.

Differential diet however, does not necessarily imply higher status during life. In the mortuary sphere, meat consumption of burials TA4 and TA5 is not related with differential treatment. Nor grave type, nor burial offerings are exceptional. On the other hand, the mature female buried in TA1, was the oldest individual, buried in the only cist, accompanied by a vessel and had a different diet. It can be thus suggested that this individual had a special status during life.

To conclude, a notion of 'wealth' is missing from the funerary context in the Aspis. During life however, some individuals must have enjoyed special status, as is indicated by the diet and mortuary treatment of the mature female. At the nearby cemeteries of the North Sector of Argos some graves are placed in tumuli cemeteries as early as MH I-II, while later a couple of burials stand out in terms of grave elaboration and of quantity and quality of the grave goods (Papadimitriou N. 2001a, 20-21; 2001b; Milka in Voutsaki et. al. 2009b, 178-179; Sarri & Voutsaki 2011, 433-443). In contrast with burials placed in the settlement, in the extramural cemeteries differentiation and the notion of 'wealth' is expressed in the mortuary field.

Finally, let me examine the role of kinship in the patterning of the mortuary data.

3.5.4 Kinship and descent

It is widely accepted that kin relations and common descent were principal components structuring everyday life in small-scale societies. The way kinship was expressed or not in the mortuary patterning differs from site to site. It is usually expressed in spatial

(grave patterning, relation to houses) and temporal (memory and descent) terms, and can be detected in the archaeological record.

In the Aspis although the graves tend to form small groups, these groups were mainly age based. Not all age grades are represented, while in the adult category females clearly predominate. The demographic composition of the groups thus does not give direct support to the kinship hypothesis. However, it does not exclude it either as individuals belonging to the same general age category (adults versus sub-adults) may also have been kin related.

Moreover, the groups exhibit similar practices, and variation from prevailing practices has not been observed between the two groups. Such variation is usually an index of coherence of grave groups and a way of differentiation between them.

However, the graves in the Aspis were usually not directly connected to specific houses. Most of them were opened in open spaces between the houses, rather than inside them or upon their ruins. The same holds true for the two designated groups. Both groups moreover, were not long-lived, at least when compared with the graves groups from Lerna. In the Aspis therefore the temporal and spatial persistence of the grave groups and their relation to specific houses cannot be used as evidence supporting kinship and descent. Finally, the practice of re-opening a grave for a new burial, which is a strong evidence for kin relations, has not been attested in the Aspis.

On the other hand, the graves were opened inside the settlement, in close proximity to contemporary houses. In this way the ancestors were part of the everyday life reinforcing common descent in the family or in the community level.

Moreover, relatively many graves were opened one upon the other or one next to the other. Such a practice implies first that the older graves were remembered and second that the individuals buried closer together might have been related. Although it is difficult to claim that the burials were remembered by members of their own family, especially with the absence of differentiation between the groups, the placement of burials so close together shows closer affinities between those individuals.

What is also important in the Aspis is that only a small part of the population was buried in the settlement. The vast majority of the deceased were buried, at least during the MH III period at the extramural cemeteries SE of Aspis. The burials still associated with the settlement, at least the adult ones, were thus rather exceptional. It can be argued that specific families chose to bury their dead in the settlement following the old tradition.

However, the possibility cannot be excluded that those burials were selected on the basis of other characteristic, not related to kinship e.g. profession or cause of death.
We see therefore that in the Aspis kinship and common descent were less emphasised in the mortuary sphere than in other settlements. The grave groups were primarily age based, they do not relate to specific houses and they do not persist through time. The close proximity of some graves and the absence of over differentiation may indicate, however, that some individuals might have been related.

3.5.5 Change through time

In this last section an attempt will be made to study change through time in the spatial arrangement of the graves, in the grave types and offerings and in the mode of disposal of the dead. However, the relatively short time span covered by the burials, the small sample size and the restricted area from which it derived do not always allow us to reach conclusions.

i. Spatial arrangement of the graves

Change through time has been observed in the placement of graves in relation to houses. Houses belonging to the MH I-II phase have not been preserved, as a levelling operation took place by the end of the MH II period. Thus the relation of two possibly MH I-II graves with any contemporary houses is unknown.
During the MH IIIA phase a couple of graves may have been opened inside houses, while the later were still in use. At the same time other graves were placed in open areas between the houses.
MH IIIB burials were no longer placed inside contemporary houses or upon the ruins of earlier houses. They were all placed in between the houses. At the same time a remarkable growth is observed in the nearby extramural cemeteries of Argos, where the majority of the deceased were buried. Burials later than the MH IIIB period have not been found at the Aspis.
It seems that gradually the graves were placed in greater distance from the houses: inside and outside them in the earlier phases, outside them in the later phases and outside the settlement during and after the MH IIIB period.

ii. Grave types

The earlier MH I-II graves were pits used for adult burials. A neonate jar burial on the other hand, may have been MH IIIA or earlier. The majority of the MH IIIA and MH IIIB graves, however, were pits used for adult and sub-adult burials. The only cist dates to the MH IIIA or MH IIIB period and belongs to an adult.

On the bases of few cases, it can tentatively be suggested that during the MH III variability in the grave types used increased, albeit only slightly if compared with other sites.

iii. Pottery

No pottery has been found in the MH I-II graves. All the vessels used as offerings date to the MH III period, following the general increase in the deposition of offerings during that time.

iv. Mode of disposal

Concerning the mode of disposal of the dead great homogeneity is observed. All burials were, single, primary, contracted inhumations. The only double burial belongs to the MH IIIA period.

CHAPTER 4: SUMMARY AND CONCLUSIONS

Before addressing the main questions posed in this study and come to some conclusions about social structure and change in the MH Argolid, let me briefly summarise the basic mortuary patterns of each site studied here.

4.1 LERNA AND MYLOI: SUMMARY

Lerna is the largest and best documented sample in the Argolid. Although the settlement data are not fully published yet, anthropological information is available for almost all skeletons. The picture we have for Myloi is far more fragmentary, as only a small part of the cemetery has been excavated and the skeletal material is lost and has never been studied.

Age and kinship, and to a lesser extent gender were the primary principles structuring the mortuary practices in Lerna. Most of the differences in the burial assemblage were observed between age groups, while the existence of grave groups, their coherence and permanence and their close association with free standing houses underlines the importance of kinship. The alternation between houses and graves in the same location express also a concern with descent and possibly with the transmission of property. It can be proposed that burials were actively used for the creation of family memory already in the earlier MH period, and that they became focal points upon which family histories were anchored. To put it differently, the emphasis seems to have been placed on descent and continuity within the family, and not on social memory, i.e. memory of wider kin groups or the community as a whole.

In Myloi, although a small part of the cemetery has been excavated and anthropological study of the skeletons is missing, it seems that age was once more the main criterion for inclusion in the cemetery.

On the other hand, wealth differences between individuals and/or between groups were never pronounced. Even during the LH I, when there is some evidence for status differentiation inside the settlement, but also in the extramural cemetery of Myloi, differentiation remains modest. Of course it should be kept in mind that we are missing the evidence from the two shaft graves from Lerna.

Changes have been observed throughout the period in different aspects of the burial assemblage. Important changes have been noticed already in MH I–II, while in MH II

their rate intensifies. Changes have been observed in the later phases as well, but these are not accompanied by an increase of offerings and of valuables. We therefore would like to suggest that the developments in the earlier part of the period do not set in motion an increase in social complexity, at least not in Lerna (Voutsaki and Milka 2016, 104).

4.2 ASINE: SUMMARY

4.2.1 KASTRAKI

Although the architectural remains from Kastraki have been published and the same holds true for the graves, the temporal analysis is seriously hampered by the large number of un-dated graves. On the other hand, many skeletons have never been studied and therefore invaluable information on age, gender, diet and pathologies is largely missing. Nevertheless, based on the available information some general patterns have been observed.

Age and probably kinship were the prime structuring principles of social life in Kastraki, as revealed from the burials. Most of the distinctions observed through time were between adults and sub-adults. The grouping of burials of similar age highlights age distinctions, while family relations were not emphasized as much as in other sites, notably Lerna. On the other hand, only some hints of gender differentiation were revealed from the few sexed skeletons. Some group differentiation was observed throughout the period, while minimal wealth differences between individual burials appeared during the later part of the period. In fact, the notions of wealth and personal status differences were never emphasized in Kastraki. This may be to a certain extent a chronological pattern, as MH III/LH I graves were only occasionally placed in the settlement and LH I graves were absent.

In Kastraki the importance of kinship was manifested by the shared features within burial groups and their close relation to free-standing houses. The clustering of age-based burials may perhaps emphasize the significance of age divisions, but it does not exclude the significance of wider kinship ties and descent. However, the fact that houses and graves do not alternate in the same location express a lack of concern with the transmission of property within the family. In contrast with Lerna, the emphasis in Kastraki seems to have been placed less on descent and continuity within the family and more on social memory, i.e. memory of wider kin groups.

4.2.2 EAST CEMETERY

The EC of Asine is a very important site but its partial excavation, poor preservation due to the high water level and the lack of stratigaphy have resulted in fragmentary information, especially for the skeletal remains. Moreover, the foundation date of the cemetery is not certain.

At the extramural tumulus cemetery of Asine common descent was emphasized not only by the formation of a conspicuous and distinct form of a cemetery, but also by the shared practices followed. The novel cemetery type and the use of a new grave form, i.e. large pithoi for adult burials, reveal a different burial ideology from the one shared among the people burying their dead inside the settlement. It is thus possible that people buried at the EC were emphasizing their common descent and at the same time their difference from the rest of the population. As we have seen, the emphasis inside the settlement seems to have been placed less on descent and continuity within the family and more on social memory, i.e. memory of wider kin groups.

Age differentiation at the EC was attested in the exclusion of certain age categories but also from the grave types used for adults and sub-adults and from the offerings accompanying the dead. In general, age divisions in the EC are clearer than among the settlement burials.

On the other hand, gender was not a criterion for the inclusion in the cemetery. Only hints of gender differentiation have been observed, based on data from the few sexed skeletons. During the later phases, however, gender differences became more emphasized. During this period, weapons were placed in male graves and at the same time the most elaborate grave of the cemetery belonged to a male.

Further, elaboration differences between the burials existed, as can be seen in the grave types and offerings. These differences were present already from the MH I-II period but became more emphasized during the MH III-LH I period. The emphasis was shown by the deposition of more and more diverse objects in some of the graves, among which a few golden ornaments. However, the fact that many graves were unfurnished indicates that wealth was not the main criterion for inclusion in the cemetery.

4.2.3 BARBOUNA

The available information from Barbouna is fragmentary as the sample is small, the area is neither fully excavated nor published.

Age and probably kinship were important criteria of differentiation in the late MH settlement of Barbouna. Gender differences became slightly more pronounced than in the earlier phases in Kastraki, while status differences can be observed, especially among the latest graves, though they were never pronounced.

Many of the distinctions observed in the burial record were once more between adults and sub-adults. Age differentiation was expressed in the age composition of the burial assemblage, in the spatial arrangement of the graves, in the grave types used and, to a lesser extent, in the grave offerings and the mode of disposal of the dead.

At the same time there are quite strong indications supporting the hypothesis that kinship and common descent were also expressed in mortuary pattern. The placement of a group of graves in a well-organized burial ground with shared practices during the MH III period, and the introduction of secondary burial later on show that relations between individuals were emphasized. The use of a previously inhabited area may provide a further indication for the significance of social memory (Dakouri-Hild 2016, 16; Lagia et al. 2016, 200).

During the latest phase of the MH period and the transition to the LH gender differences became slightly more emphasized and were also translated into status differences. For instance, although the sample is small, men were buried in more elaborate grave types and they were accompanied by grave offerings.

In general, different groups living in Asine were trying to create their status, to emphasise their common descent and to differentiate themselves by using different burial practices. The emphasis was constantly shifting between the burial grounds. Rather than a hierarchical system, a local elite which exclusively used one burial place, the mortuary pattern reveals that different groups negotiated their status by expressing their differences. A dynamic tension was thereby created in MH III-LH I society, if not earlier. The group using the EC clearly tried to differentiate themselves during the MH I-II and during the transitional MH III/LH I.

4.3 THE ASPIS IN ARGOS: SUMMARY

The burial sample from the Aspis is small but well studied and documented.

Based on the mortuary patterning, age seems to have been an important social criterion in the MH III-LH I Aspis, though it was not absolute. On basis of the restricted data, gender may have been an important criterion of differentiation, at least in the mortuary

sphere, as it is seen in body position, the deposition of offerings and the grave types used for men and women. Again however, it was not absolute as rigid divisions are missing.

In general, differentiation between individuals in terms of 'wealth' was minimal in the Aspis. At the same time, at the nearby cemeteries of the North Sector of Argos a couple of burials stand out in terms of grave elaboration and of quantity and quality of the grave goods. In contrast with burials placed in the settlement, in the extramural cemeteries the notion of 'wealth' is by now expressed in the mortuary field, and it can be proposed that it represents status differences.

Finally, in the Aspis kinship and common descent were less emphasised than in other settlements. The graves form groups but these groups were primarily based on age, and were relatively short-lived. In addition, they were not related directly with houses, as they were opened in free spaces between the houses.

4.4 CONCLUSIONS

Having summarised the basic characteristics of the cemeteries systematically analysed in this study, let me address again the main questions posed at the beginning:

What does the mortuary patterning tell us about the social structure of MH society, and particularly in the Argolid? Was there change through time and what was the nature of this change?

i. Differentiation[217]

Until recently the MH period was described as homogeneous and static. However, as we have seen, differentiation and change through time was observed in all sites. Next to variability in grave types and sets of offerings, different spatial contexts were used inside and outside the settlement and diverse mortuary practices have been attested (Cavanagh & Mee 1998, 23-33; Voutsaki 2010b, 602-603, Voutsaki 2010d, 103-104). Different types of cists and pits were constructed, which may or may not have floors and covers, while exceptionally jars and larger pithoi were also used as burial containers. If we turn to offerings, almost every furnished grave has a unique

[217] The difference between the terms, "differentiation" and "variation" will be addressed in the broader synthesis of the data, as part of the wider MH project, where the burials from Argos and from Mycenae will be included.

combination of objects, although some sets were created during the later phases. At the same time, however, most graves did not contain offerings giving a picture of homogeneity. In the settlement context burials were placed at the outskirts of the settlements or in the core of the habitation space, with varying spatial relation to specific houses. Some graves may have been contemporary with freestanding houses, and were opened inside, or more often outside them. Most graves, however, seem to be later than the houses and to have been opened upon their ruins (Sarri 2016; Labrude 2016, 298). The extramural cemeteries were usually flat, but some were organised around a tumulus. As a rule, single, primarily inhumations in contracted position have been found. However, a couple of double and multiple burials exist, secondary treatment has been attested in a few cases (especially in Lerna), while there is no standardisation in the positioning of the corpse in the grave.

Moreover, differentiation was not only observed within each burial place, but also between sites during the same period. Although in general similar practices were followed, the way each community used them and the time they adopted or abandoned these practices was not uniform. For example, the use of cists starts probably earlier in Asine than in Lerna, the use of burial jars ceased later in Asine, the extramural cemetery is adopted much earlier in Asine than in Lerna. In addition, the constant alternation between habitation and burial use of the same plot, which is so characteristic in Lerna, cannot really be seen in Asine nor in the Aspis (though in the latter, the data are much more restricted). If we turn to offerings, the assemblage from Lerna is more varied and richer in terms of number of offerings deposited with the dead, although the same object categories are used everywhere.

We see therefore that differentiation was attested in intra and inter-cemetery level. But what does this differentiation tell us about social structure?

The thorough analysis of all the available data has shown that in all cemeteries and through time kinship was the most important structuring mechanism and age position in the kin network the most important component (Voutsaki 2005). Gender was less emphasised but became more important during the MH III-LH I period in some, but not all sites. Many of the observed differences were between age grades, while differentiation has also been observed between groups of graves, probably kin related.

The way and the degree kin relations and age differentiation were expressed differed from site to site. In Lerna for example emphasis was given in the family-household level and on the transmission of property and continuation within the family. In Asine,

the emphasis was placed on wider groups. Inside the settlement, at Kastraki, the burial pattern reveals less concern on the transmission of property within the family and descent and emphasis on social memory, i.e. memory of wider kin groups. On the contrary, common descent was clearly manifested in the EC of Asine.

On the other hand, the existence of elite groups (Nordquist 1987; Kilian-Dirlmeier 1995, 1997) or of aggrandizing leaders of factions (Wright 2001, 2004b, 2008) was not confirmed for the greater span of the MH period (Dickinson 2010, 23; Voutsaki 2010d, 107). Individual differentiation in terms of wealth is attested only rarely in MH I-II in the sites included in this study. During this period, a couple of exceptional burials, not more than one or two in each site, have been found. Wright (2010a) has highlighted the importance of mobility of certain individuals or groups, e.g. hunters, pastoralists, maritime traders, that allowed them to interact in a regional level, adopt new practices and have access to new resources. He believes that the few exceptional MH II burials (i.e the Shaft Grave from Aigina or grave J4B from Lerna) mirror the special status of those individuals. Nevertheless, the novel and diverse practices used by them -e.g. better built graves, more or more valuable offerings, or extended position- did not always have continuation and did not create a tradition locally, i.e. in Lerna. However, we can suggest that they set a process of change in motion.

It has been proposed that the early MH communities had a rigid code of moral values that resulted in tight limitations in the expression of possible inequalities (Maran 2011, 286). Therefore, equating wealth with status in this early stages is problematic (Petrakis 2010). Special circumstances at the time of death, personal preferences or claims to special status may have resulted in those exceptional burials.

Moreover, the early tumuli cemeteries of Asine and Argos were not initially associated only with rich burials, while throughout their use furnished and unfurnished graves have been placed in them. Therefore, their creation cannot longer be interpreted as a symptom of the presence of local elites already from the beginning of the MH period. Dickinson (2010, 23) sees tumuli as the result of communal efforts and he believes that the community singled out those buried in them. Although many other researchers disagree and support the early elite hypothesis (e.g. Nordquist, Kilian-Dirlmeier, Whittaker), Petrakis (2010) makes two interesting suggestions; first that grave wealth was not a mean of expressing status and prestige before the MH III period, that instead grave or cemetery form were expressing the need to differentiate. Second, and most important, that the lack of uniformity and standardisation before the end of the MH did

not allow for competition, which is characteristic between elite groups. His suggestions are largely true for the Argolid, although in other regions, e.g. Kollona in Aigina and Kastroulia in Messenia, grave wealth was an early mean of differentiation. In any case, the settlement data in Lerna and Asine do not support the elite hypothesis either (Voutsaki 2010c; Wiersma 2014).

Finally, the practising of feasting during the funeral, which is connected with the presence of factions' leaders (Wright 2004b), has not been attested before the shaft grave era (Lindblom 2007; Lindblom & Manning 2011). [218]

However, subtle differences between kin groups were observed already from MH I-II period but they were not translated into emphasised wealth differences in the mortuary sphere. It has been proposed as a working hypothesis that as authority was embedded in kin relations in the MH period, it did not require ostentatious gestures, impressive houses or rich graves for its legitimation (Voutsaki 2005, 137; 2010e, 92). The contextual analyses of the mortuary data from Lerna, Asine and the Aspis support this hypothesis.

Personal status emerges as a criterion of differentiation only during the later part of the MH III and the succeeding LH I period. During this time, shaft graves and elaborate cists were built, novel burial practices were introduced, the quantity and quality of the offerings placed in some graves increased, while some of them were placed in a prominent position. Outside the Argolid, in the site of Mitrou in the east Locris, central Greece, elaborate LH I tombs were closely related with complexes, which have been attributed to local elite (van de Moortel 2016). What is important, many of these elements were combined in the same grave. Therefore, layers of differentiation were now observed. However, even in this period status was embedded in the kin network (Cavanagh & Mee 1998, 34; Voutsaki 2010b, 604; Voutsaki & Milka 2016, 117-118). The two shaft graves of Lerna for example, were placed not only upon or next to the EH Tumulus, but in the area of a previously well-defined and long-lived grave group related to successive houses, which was differentiated in many aspects already from the MH II period. In Barbouna one of the 'shaft graves' was re-opened for a new interment, a practice which clearly demonstrates a renewed emphasis in kin relations and common descent. At the same time the richer burial from Asine was placed in the EC, where

[218] Recently (Philippa-Touchais et al., forthcoming) a pottery assemblage from MH I-II Aspis has been interpreted as the leftovers of feasting, however not related to burials.

common descent and demarcation from the rest of the community was stressed from the beginning.

I would like therefore to propose that instead of local elites or faction leaders already present in the MH II period, the burial pattern reveals a rather fluid situation, arising perhaps from continuous negotiation between social groups, most probably kin-related. It can be suggested that some groups or individuals, especially during the later part of the MH period and the transition to LH, were expressing their claims on status, trying to distinguish themselves through burial elaboration and mortuary ritual as well as feasting (Wright 2004a), rather than merely legitimate already existing status divisions (Voutsaki 1997, Milka in Voutsaki et al. 2007, 80; Ingvarsson-Sundström et al. 2013, 157-8; Voutsaki et al. 2011, 455).

ii. Change through time

I will now turn to the last question addressed in this study, namely change through time. The analysis has revealed that change can be observed in different aspects of the mortuary sphere. It is already clear from the discussion on age, gender, kinship and elaboration that the way these aspects were manifested as well as their significance changed through time. However, change has also been noticed in the demographic composition of the burial assemblages, the spatial arrangement of the graves, the grave and cemeteries types, the offerings and in the mode of disposal of the dead.

To start with, the demographic composition of the burial assemblages changes among the settlement burials. In Lerna for example, where the majority of graves can be dated accurately, only neonates and infants were found during the EH III period, while adults and sub-adults were buried in the settlement from MH I onwards. Sub-adults predominate again in the SGE. On the other hand, adults predominate in the extramural MH III-LH I cemetery of Myloi and the same holds true for the extramural cemeteries of Asine and Argos. These changes reflect changing attitudes towards death and changing burial ideology and at the same time changing perception of different age grades. It seems that the living space was more appropriate for adult burials in certain periods and less appropriate in others. In social terms, it can be proposed that all age grades were needed at times when the emphasis in the mortuary sphere was placed on household/family.

The spatial arrangement of graves inside settlements and in the extramural cemeteries also changed through time. The first graves in Barbouna for example were placed in a

terrace above the houses, while later the cemetery expanded above disused houses. It can be proposed that in Barbouna graves, especially those of adults, were always placed at some distance from the living houses reflecting the need for a growing distance between the living and the dead. The expansion of the cemetery over abandoned houses could be attributed to practical reasons (population growth), or to symbolic reasons and the need to emphasise a connection with the ancestors, who once lived (or were thought to have lived) in the disused houses (Dakouri-Hild 2016, 16; Labrude 2016, 299). It could be suggested that in the EC the first graves were placed around the tumulus, while later some of them were placed in the tumulus as well, perhaps showing that a more prominent position was chosen for those graves.

Furthermore, new grave types are introduced and the proportion of each type changed. In Lerna built cists were introduced during the transitional MH III/LH I and shaft graves in LH I. Generally, the frequency of pits declined through time, while cists increased. The evidence suggests a gradual increase in grave size and complexity of construction. In Kastraki change through time has been observed in the frequency of different grave types and in their use for different age categories, rather than in the introduction of new types. Actually, in Kastraki fewer grave types are used as times goes by and standardization increases. The use of stone-lined pits ceased in MH I and of burial jars in MH III. However, 'shaft graves', although not typical and smaller than usual, were introduced in Barbouna during the MH III-LH I period. At roughly the same time a large cist was built at the EC.

Next to new grave types new cemeteries also came into use. The tumulus IQ was most probably built during the MH I-II period, and the same holds true for Tumulus A in Argos. These early tumuli clearly separate a group of people from the rest. The extramural cemetery of Myloi was created much later, during the transitional MH III/LH I period. At the same period large areas of the settlements at Lerna and Barbouna were turned to cemeteries. These late extramural cemeteries, both typical and upon abandoned houses, show that the two realms, the dead and the living, were becoming more clearly separated. Moreover, in the formal cemeteries the funerals could be attended by a larger group of people, giving the opportunity to the burying group to participate in shared rituals. They thus became places of collective memory (Dakouri-Hild 2016; van de Moortel 2016, 100; Labrude 2016, 299).

If we turn to grave offerings, a general increase of graves containing pottery and non-ceramic objects, as well as an increase in the quantity and quality of these objects in the

graves was observed through time. In Lerna there is a tendency for standardisation of the pottery assemblage used in burials through time and an increasing emphasis on body ornamentation. During the MH III-LH I period silver objects were placed in the graves for the first time and the number of bronze objects increased. In Kastraki during the late phases more vessels of better quality were placed mainly in cists. However, in Kastraki neither elaborate graves nor large amounts of vases are found. On the other hand, in Barbouna during the MH III/LH I-LH I period pottery was only placed in adult male burials buried in 'shaft graves'. Finally, in Asine relative stability has been observed in the deposition of non-pottery offerings in the settlement context. In the EC during the later phase a general increase in graves containing pottery and non-pottery objects and also in the amount of pottery found in them was noticed. The same general tendency was observed in the Aspis, where the few graves containing pottery date to the MH III period.

Concerning burial treatment great homogeneity was noticed through time, and only few changes have been observed. In Lerna secondary treatment of the skeletons increases during the MH III-LH I period and extended skeletons became relatively more frequent towards the end of the MH and the beginning of the LH period but they never predominate. Interestingly, in Myloi a high percentage of skeletons were found in extended position. In Kastraki extended skeletons are missing, but the contracted skeletons placed on their back mostly belong to the late phases. Although the number of dated skeletons is very small, it seems that body position became more standardised in Kastraki through time. The only secondary burial found at Barbouna dates to the LH I period.

We see therefore that changes did occur in many different aspects of the mortuary record. These changes started already from the beginning of the MH period but they became intensified towards its end. In general, two major change horizons can be proposed, one at the beginning of the MH II and a second at the transitional MH III/LH I-LH I.

At the beginning of the MH II period in Lerna the practice of burying above disused houses sets in and some graves start to form clusters. From now on the use of space moves back and forth between habitation and burial. At the same time the use of cists is possibly introduced. Moreover, the deposition of ceramic and non-ceramic offerings increased, while the first offerings were placed with sub-adults. A couple of unusually rich and exceptional burials also date to the MH II period. In Asine the tumulus EC

was established in MH I-II and large pithoi were used as burial containers of adult and juvenile burials. During the MH II period at Kastraki a tendency to separate adults from the domestic area was observed, as only adults were buried at the outskirts of the settlement.

During the transitional MH III/LH I and the successive LH I period the pace of change intensified. In Lerna the settlement was gradually abandoned (as far as we can say) and large areas were used exclusively for sub-adult burials. At the same time the extramural cemetery of Myloi comes into use. Shaft graves and larger and better constructed cists are now introduced. More vessels were deposited in fewer graves and the practice of depositing pottery sets begun. Finally, secondary treatment of earlier burials increased. In Asine all burials in Kastraki and Barbouna are by now placed upon abandoned houses and the use of the EC became much more intense. 'Shaft graves' and larger cists were used, while a correlation between elaborate grave types, rich offerings and adult, mainly male, burials is observed. Secondary burial is also attested. In the Aspis MH IIIB burials were only placed in free areas between the houses. At the same time a remarkable growth is observed in the nearby extramural cemeteries of Argos, where the majority of the deceased were buried.

However, changes did not occur simultaneously in all sites. Every burial site has its own history and the nature of change differs from site to site. Generally, a steadily 'scaling up' was observed, but it did not affect all sites in the same way.

In Lerna changes are observed throughout the period, but are neither linear, nor cumulative (Voutsaki & Milka 2016). Although gradual changes occur in many aspects of the funerary record, Lerna seems to decline in importance by the end of the period. Even though we are missing the evidence from the two shaft graves, large amounts of pottery and precious objects in elaborate graves have not been found. It is perhaps not a coincidence that in contrast with Asine, Argos and Mycenae golden objects are missing from Lerna and Myloi. The settlement and the extramural cemetery of Myloi was most probably abandoned by LH I and no early Mycenaean cemetery has been found in the vicinity.

Changes in Asine were not linear either. The establishment of the tumulus cemetery in the MH I-II was not followed by increased complexity in practices until the LH I period. Although a few changes are observed after the construction of the tumulus, the mortuary record is characterised by relatively stability. It is only during the later part of the MH and the beginning of the LH period that intensification of changes and increased

complexity is observed. Not only elaborate graves, 'shaft graves' and large cists, are built, but they were regularly associated with adult, mainly male burials, with more diverse and richer funerary assemblage, and with novel practices, i.e. extended skeletons and secondary burials. Some of them were also connected with the more conspicuous cemetery of the site, i.e. the tumulus cemetery. Therefore, in Asine parallel strategies of differentiation can be attested in some of the late graves, emphasising the special status of some individuals. Although the tumulus cemetery gradually lost its importance and came out of use, a rich early Mycenaean chamber tomb cemetery was established not far away (Frödin & Persson 1938). In contrast with Lerna, Asine remained an important site.

The same general developments were followed in Argos. The extramural cemeteries rose in importance from the end of the MH III period onwards, and an early Mycenaean cemetery was established in Deiras (Deshayes 1966).

However, nothing is comparable to the richness and complexity of the Shaft Graves of Mycenae. The general 'scaling up' of Lerna, Asine and Argos did not result in the Shaft Grave phenomenon, as this is widely known from the Grave Circles B and A. The differences between the Shaft Graves of Mycenae and the most elaborate graves from the other Argive sites cannot easily be bridged. The internal changes through time in the MH settlements and cemeteries, as presented above, do not really prepare us for the exceptional richness of Grave Circle B.

The contextual analyses of mortuary practices carried out in this thesis allow us to conclude that the MH societies of the Argolid were neither uniform nor static. Differentiation existed from the beginning of the period along kin and age groups, and less so between gender categories. Personal status emerged as criterion of differentiation during the later part of the period. Changes were noticed throughout the period but their rate and the way they affected each community differed. Different communities followed different trajectories, which lead to their rise or their decline during the Early Mycenaean period.

REFERENCES

Alden, M.J., 2000, The Prehistoric Cemetery, Oxford, (Well-Built Mycenae 7).

Angel, L., 1971, Lerna. A Preclassical site in the Argolid, 2: The people of Lerna. Analysis of a Prehistoric Aegean Population, Princeton & Washington.

1982, Ancient Skeletons from Asine. In Dietz, S., Asine II, 1: General Stratigrafical analysis and Architectural Remains (ActaAth-4, 24:1), Stockholm, 105-138.

Aupert, P., 1975, Chronique des fouilles et découvertes archéologiques en Grèce en 1974, BCH 99:2, 617.

Backe-Forsberg, Y., & G. C., Nordquist, n.d. Excavations in Area III 1973-1974 [Barbouna]. Unpublished manuscript.

Balitsari, A., 2017, ARGOS. The Middle Helladic (MH) Origins of a Diachronic Argive Site. New Evidence for the MH I-II Period from the South Quarter (Unpublished PhD diss. University of Athens, in Greek).

Banks, E.C., 1967, The Early and Middle Helladic Objects from Lerna, PhD diss., University of Cincinnati. University's Microfilms 67-15948.

Binford, L.R., 1971, Mortuary Practices: Their Study and Potential. In J. Brown (ed.), Approaches to social dimensions of mortuary practices, Washington DC: Memoir of the society for American Archaeology 25, 6-29.

1972, Mortuary Practices: Their Study and Potential. In L. R. Binford (ed.), An Archaeological Perspective, New York, Seminar Press, pp. 208-243.

Blackburn, E.T., 1970, Middle Helladic Graves and Burial Customs with Special Reference to Lerna in Argolid, PhD diss., University of Cincinnati, University's Microfilms 71-01536.

Blegen, C.W., 1937, Prosymna. The Helladic Settlement Preceding the Argive Heraeum,

Cambridge.

Bommelaer, J. Fr., Grandjean, Y., & Maffre, J.-J., 1970, Argos. I. Secteur δ, BCH 94, 765-788.

Bommelaer, J. Fr., Grandjean, Y., 1972, Recherches dans le Quartier sud d' Argos, BCH 96, 155-228.

Boyd, M., 2002, Middle Helladic and Early Mycenaean Mortuary Practices in the Southern and Western Peloponnese, BAR IS 1009.

Brown, J., (ed.), 1971, Approaches to the Social Dimensions of Mortuary Practises, Washington DC: Memoir of the Society for American Archaeology 25.

Brück, J., 2004, Material metaphors: The relational construction of identity in Early Bronze Age burials in Ireland and Britain, Journal of Social Archaeology 4, 307-333.

Caskey, J., 1954, Excavations at Lerna, 1952-1953, Hesperia 23, 3-30.

1955, Excavations at Lerna, 1954, Hesperia 24, 25-49.

1956, Excavations at Lerna, 1955, Hesperia 25, 147-73.

1957, Excavations at Lerna, 1956, Hesperia 26, 142-62.

1958, Excavations at Lerna, 1957, Hesperia 27, 125-44.

1959, Activities at Lerna, 1958-1959, Hesperia 28, 202-207.

1972, Investigations in Keos. Part II: a conspectus of the pottery, Hesperia 41, 357-401.

Caskey, J.L., Blackburn, E.T., 1997, Lerna in the Argolid. A short guide. American School of Classical Studies at Athens.

Catling, H.W., 1975, Archaeology in Greece, 1974–75, Archaeological Reports: 21, 3-28.

Cavanagh, W., Mee, C., 1998, A Private Place: Death in Prehistoric Greece, SIMA, CXXV, Jonsered, Paul Åström.

Chapman, J., 1983, Meaning and Illusion in the Study of Burial in Balkan Prehistory. In A. G. Poulter (ed.), Ancient Bulgaria. Papers Presented to the International Symposium on the Ancient History and Archaeology of Bulgaria, University of Nottingham, 1981, Part I, pp.1-42.

2000a, Fragmentation in Archaeology, Routledge, London and New York.

2000b, Tensions at funerals. In Dobres M. and Robb J. E. (eds.), Agency in archaeology. Routledge, London and New York.

Chapman, J., Gaydarska, B., 2006, Parts and wholes: fragmentation in prehistoric context. Oxbow.

Coleman, J.E., 1977, Keos I, Kephala. A Neolithic Settlement and Cemetery. American School of Classical Studies.

Courbin, P., 1954, Argos, BCH 78, 173-183.

1955, Argos, BCH 79, 312-314.

1956, Argos, BCH 80, 366-376.

Cullen, T., 1999, Scattered Human Bones at Franchthi Cave: Remnants of Ritual or Refuse? In P. B. Betancourt, V. Karageorghis, R. Laffineur, W.D. Niemeier (ed.), Meletemata, Studies in Aegean Archaeology Presented to Malcolm H. Wiener As He Enters his 65th Year, Aegaeum, 20:165-171.

Dakouri-Hild, A., 2016, Getting to Funerary Place in a Fairly Short Stretch of Time: Death and Performance in the Prehistoric Aegean. In Dakouri-Hild A. & Boyd M. J. (eds.), Staging Death. Funerary Performance, Architecture and Landscape in the Aegean, 11-30.

Daux, G., 1967, "Argos: Secteur δ", BCH 91, 814-32.

1968, Argos, BCH 92, 1003-1045.

1969, Argos, BCH 93, 986-1024.

Davis, J., Stocker, S., 2010, Early Helladic and Middle Helladic Pylos: The Petropoulos Trenches and Pre-Mycenaean Remains on the Englianos Ridge. In A. Philippa-Touchais, G. Touchais, S. Voutsaki & J. Wright (eds.), Mesohelladika: The Greek Mainland in the Middle Bronze Age, BCH Supplément 52, 101-106.

Deshayes, J., 1966, Argos. Les fouilles de la Deiras, Études Péloponnésiennes IV, Paris.

Dickinson, O.T.P.K., 1977, The Origins of Mycenaean Civilization, SIMA 49, Götergorg.

1994, The Aegean Bronze Age, Cambridge, Cambridge University Press.

2010, The 'Third World' of the Aegean? Middle Helladic Greece Revisited. In A. Philippa-Touchais, G. Touchais, S. Voutsaki & J. Wright (eds.), Mesohelladika: The Greek Mainland in the Middle Bronze Age, BCH Supplément 52, 15-27.

Dietz, S. 1980, Asine II. Results of the Excavation East of the Acropolis 1970-74, 2: The Middle Helladic Cemetery, The Middle Helladic and Early Mycenaean Deposits (ActaAth-4, 24:2), Stockholm.

1982, Asine II. Results of the Excavation East of the Acropolis 1970-74, 1: General Stratigrafical analysis and Architectural Remains (ActaAth-4, 24:1), Stockholm.

1991, The Argolid at the Transition to the Mycenaean Age: Studies in the Chronology and Cultural Development in the Shaft Grave Period, Copenhagen.

Dietz, S., Divari-Valakou, N., 1990, A Middle Helladic III/ Late Helladic I Grave Group from Myloi in the Argolid (Oikopedon Manti), Opuscula Atheniensia XVIII:4, 45-62.

Divari-Valakou, N., 1998, Evrimata apo to Mesoelladiko Oikismo tou Argous. Anaskafi

Oikopedou B. Tzafa. In A. Pariente & G. Touchais (eds.), Argos et l' Argolide. Topographie et urbanisme. Actes de la table ronde internationale. Athènes-Argos 28/4-1/5 1990, Paris, 85-101.

Dobres, M. & Robb, J. E. (eds), 2000, Agency in archaeology. Routledge.

Felten, F., 2007, Aegina-Kolonna: The History of a Greek Acropolis. In Felten F., Gauss W. and Smetana R. (eds.), Middle Helladic Pottery and Synchronisms, 11–34.

Felten, F., Gauss, W., Smetana, R., 2007, Middle Helladic Pottery and Synchronisms. Österreichische Akademie der Wissenschaften Denkschriften der Gesamtakademie 42, Ägina - Kolonna Forschungen und Ergebnisse 1. Vienna, Verlag der Österreichischen Akademie der Wissenschaften.

Frödin, O., Persson, A.W., 1938, Asine. The Results of the Swedish Excavations, 1922-1930, A. Westholm (ed.), Stockholm.

Fürst, C. M., 1930, Zur Anthropologie der prähistorischen Griechen in Argolis, nebst Beschreibungen einiger älteren Schädel aus historischer Zeit. Lunds Universitets Ársskrift, N.F., Avd. 2, Bd. 26:8 = Kungl. fysiografiska sällskapets handlingar, N.F., Bd. 41:8, Lund and Leipzig.

Gausss, W., Smetana, R., 2007, Aegina Kolonna, the ceramic sequence of the SCIEM 2000 project. In F. Felten, W. Gauss & R. Smetana (eds.), Middle Helladic Pottery and Synchronisms, Salzburg, 57-80.

Gausss, W. & R. Smetana, 2010, Aegina Kolonna in the Middle Bronze Age. In A. Philippa-Touchais, G. Touchais, S. Voutsaki & J. Wright (eds.), Mesohelladika: The Greek Mainland in the Middle Bronze Age, BCH Supplément 52, 165-174.

Gejvall G., 1969, Lerna. A Preclassical site in the Argolid, 1: The Fauna. Princeton & Washington.

Geller, P. L., 2005, Skeletal analysis and theoretical complications, World Archaeology 37: 4, 597-609.

Georgousopoulou, Th., 2004, Simplicity vs complexity: social relationships and the MH I community of Asine. In Barrett J. C. and Halstead P. (eds.), The Emergence of Civilisation Revisited, Sheffield Studies in Aegean Archaeology, 207-213.

Goldstein, L., 1981, One dimensional archaeology and multi-dimensional people: spatial organisation and mortuary analysis. In R.W. Chapman, I. Kinnes and K. Randsborg (eds.), The archaeology of death, Cambridge University Press, Cambridge, 53-69,

Gorogianni, E., 2002, Middle Helladic period in Boiotia: A study of social organization. MA Dissertation, University of Cincinnati.

Graziadio, G., 1988, The chronology of the graves of Circle B at Mycenae. A new hypothesis, AJA 92, 343-372.

1991, The process of social stratification at Mycenae in the Shaft Grave period: a comparative examination of the evidence, AJA 95, 403-440.

Hägg, I., Hägg, R. (eds.), 1973, Excavations in the Barbouna Area at Asine 1, Boreas, Uppsala Studies in Ancient Mediterranean and Near Eastern Civilization 4:1, Uppsala.

1975, Discoveries in Asine dating from the shaft-grave period, AAA 8, 151-160.

1978, Excavations in the Barbouna Area at Asine 2, Boreas, Uppsala Studies in Ancient Mediterranean and Near Eastern Civilization 4:2, Uppsala.

1980, Excavations in the Barbouna Area at Asine 4, Boreas, Uppsala Studies in Ancient Mediterranean and Near Eastern Civilization 4:4, Uppsala.

Hägg, R., 1974, Die Gräber der Argolis in submykenische und geometrische Zeit. Uppsala.

Hägg, R., Nordquist, G., 1992, Excavations in the Levendis Sector at Asine, 1989. A preliminary report, Opuscula Atheniensia XIX:5, 59-68.

Hallotte, R.S., 2002, Real and Ideal Identities in MBA Tombs. Near Eastern Archaeology 65:2, 105-11.

Halstead, P., 1987, Bioarchaeological Remains from the Kalythies Cave, Rhodes. In A. Sampson (ed.), The Neolithic Period in the Dodecanese, Appendix 1, 138-9, 143, Athens, TAPA.

Hamilakis, Y., Pluciennik, M., Tarlow, S. (eds.), 2002, Thinking through the body. Archaeologies of corporeality. New York, Kluwer Academic/ Plenum Publishers.

Hielte-Stavropoulou, M., 2001, The horseshoe-shaped and other structures and installations for performing rituals in funeral contexts in Middle Helladic and Early Mycenean times. In R. Laffineur & R. Hägg (eds.), Potnia. Deities and Religion in the Aegean Bronze Age, Aegaeum 22, Liège, 103-112.

2004a, Traces of ritual in Middle Helladic funeral contexts including an assessment of geographical location – an update 2018, Proceedings from the conference Celebrations: Sanctuaries and the Vestiges of Cult Activity, held at The Norwegian Institute at Athens, 12-16 May 1999, (Papers from the Norwegian institute at Athens no 6, Bergen 2004), 9-33.

Hodder, I., 1982, The Present Past. An Introduction to Anthropology for Archaeologists, Batsford/London.

Hofmanová, Z., Kreutzer, S., Hellenthal, G., Sell, C., Diekmann, Y., del-Molino, D.D., van Dorp, L., López, S., Kousathanas, A., Link ,V., Kirsanow, K., Cassidy, L. M., Martiniano, R., Strobel, M., Scheu, A., Kotsakis, K., Halstead, P., Triantaphyllou, S., Kyparissi-Apostolika, N., Urem-Kotsou, D., Ziota, C., Adaktylou, F., Gopalan, S., Bobo, D.M., Winkelbach, E., Blöcher, J., Unterländer, M., Leuenberger, C., Çilingiro, C., Horejs, B., Gerritsen, F., Shennan, S., Bradley, D.G., Currat, M., Veeramah, K.R., Wegmann, D., Thomas, M.G., Papageorgopoulou, C. & Burger, J., 2016, Early farmers from across Europe directly descended from Neolithic Aegeans, E. Willerslev (ed.), PNAS June 21, 2016, 113 (25) 6886-6891.

Howel, TL, KIntigh, KW, 1996, Archaeological identification of kin groups using mortuary and boil data: an example from the American Southwest, American Antiquity 61: 3, 537-34.

Ingold, T., 2000, Evolving skills. In H. Rose and S. Rose (eds.), Alas, Poor Darwin: arguments against evolutionary psychology, 225-246. London, Jonathan Cape.

Ingvarsson- Sundström, A., 2002, Small parts of society-skeletal remains of children at Asine. In B. Wells (ed.), New Research on Old Material from Asine and Berbati, 49-56, Stockholm.

2003, Children Lost and Found. A bioarchaeological study of Middle Helladic children in Asine with a comparison to Lerna, Unpublished PhD dissertation, University of Uppsala.

2008, Asine III: Supplementary Studies on the Swedish Excavations 1922-1930. Fasc. 2, Children Lost and Found: A Bioarchaeological Study of Middle Helladic Children in Asine with a Comparison to Lerna. Skrifter utgivna av Svenska institutet i Athen, 4°, 45:2. Stockholm: Svenska institutet i Athen.

2010, Tooth counts and individuals: Health status in the East Cemetery and Barbouna at Asine as interpreted form teeth. In A. Philippa-Touchais, G. Touchais, S. Voutsaki & J. Wright (eds.), Mesohelladika: The Greek Mainland in the Middle Bronze Age, BCH Supplément 52, 471-477.

Ingvarsson- Sundström, A., Richards, M. P., Voutsaki, S., 2009, Stable Isotopes Analysis of the Middle Helladic Population from the Two Cemeteries at Asine: Barbouna and the East Cemetery, Mediterranean Archaeology and Archeometry 9:2, 1-14.

Ingvarsson-Sundström, A., Voutsaki, S., Milka, E., 2013, Diet, Health and Social Differentiation in the MH Asine: a bioarchaeological view. In S. Voutsaki and S.M. Valamoti (eds.), Diet, Economy and Society in the Ancient Greek World: towards a better integration of archaeology and science. Proceedings of the international conference held at the Netherlands Institute at Athens 22-24 March 2010, Leuven, 149-161.

Jacobsen, T., Cullen, T., 1981, A Consideration of Mortuary Practices in Neolithic Greece: burials from Franchthi Cave. In S.C. Humphreys and H. King (eds.), Mortality and Immortality: The Anthropology and Archaeology of Death, London, Academic Press, pp. 79-101.

Janik, L., 2000, The construction of the individual among North European fisher-gatherer-hunters in Early and Mid-Holocene. In J. Sofaer Derevenski (ed.), Children and material culture, London, Routledge, 117-130

Johnson, M., 1999, Archaeological Theory. An introduction. Blackwell Publishers.

Kanz, F., Grossschmidt, K., Kiesslich, J., 2010, Subsistence and more in MBA Aegina Kolonna: An anthropology of newborn children. In A. Philippa-Touchais, G. Touchais, S. Voutsaki & J. Wright (eds.), Mesohelladika: The Greek Mainland in the Middle Bronze Age, BCH Supplément 52, 479-487.

Karo, G., 1930-33, Die Schachtgräber von Mykenai, Munich.

Kayafa, M., 2010, Middle Helladic Metallurgy and Metalworking: Review of the Archaeological and Archaeometric Evidence from the Peloponnese. In A. Philippa-Touchais, G. Touchais, S. Voutsaki & J. Wright (eds.), Mesohelladika: The Greek Mainland in the Middle Bronze Age, BCH Supplément 52, 701-711.

Kilian-Dirlmeier, I., 1995, Reiche Gräber der mittelhelladischen Zeit. In Laffineur R. & W-D. Niemeier (eds.), Politeia. Society and state in the Aegean Bronze Age, Aegaeum 12, Liège, 213-221.

1997, Das Mittelbronzezeitliche Schachtgrab von Ägina. Alt- Ägina, IV, 3, Mainz.

King, J. M., 2004, Grave-Goods as Gifts in Early Saxon Burials (ca. AD 450-600), Journal of Social Archaeology 2004; 4; 214-238.

Kiriatzi, E., 2010, Minoanising Pottery Traditions in the Southern Aegean during the Middle Bronze Age: Understanding the Social Context of Technological and Consumption Practice. In A. Philippa-Touchais, G. Touchais, S. Voutsaki & J. Wright (eds.), Mesohelladika: The Greek Mainland in the Middle Bronze Age, BCH Supplément 52, 683-699.

Kovatsi, L., Nikou, D., Triantaphyllou, S., Njau, S. N., Voutsaki, S., Kouidou, S., 2009, DNA repair enables sex identification in genetic material from human teeth, HIPPOKRATIA 2009, 13, 3: 165-168.

Kovatsi, L., Nikou, D., Kouidou-Andreou, S., Triantaphyllou, S., Zerner, C., Voutsaki, S., 2010, Ancient DNA Analysis from Human Remains from Middle Helladic Lerna (poster). In A. Philippa-Touchais, G. Touchais, S. Voutsaki & J. Wright (eds.), Mesohelladika: The Greek Mainland in the Middle Bronze Age, BCH Supplément 52, 489-494.

Labrude, A., 2016, Aegean Late Bronze and Early Iron Age Burials in the Ruins of Rulers' Dwellings: a Legitimisation of Power? In Dakouri-Hild A. & Boyd M. J. (eds.), Staging Death. Funerary Performance, Architecture and Landscape in the Aegean, 297-314.

Lagia, A., Cavanagh, W., 2010, Burials from Kouphovouno, Sparta, Lakonia. In A. Philippa-Touchais, G. Touchais, S. Voutsaki & J. Wright (eds.), Mesohelladika: The Greek Mainland in the Middle Bronze Age, BCH Supplément 52, 333-346.

Lagia, A., Moutafi, I., Orgeolet, O., Skorda, D. & Zurbach, J., 2016, Revisiting the Tomb: Mortuary Practices in Habitation Areas in the Transition to the Late Bronze Age at Kirrha, Phocis. In Dakouri-Hild A. & Boyd M. J. (eds.), Staging

Death. Funerary Performance, Architecture and Landscape in the Aegean, 181-205.

Lagia, A., Papathanasiou, A. & Triantaphyllou, S., 2014, The State of Approaches to Archaeological Human Remains in Greece. In O'Donnabhain B. & Lozada M. C. (eds.), Archaeological Human Remains. Global Perspectives, 105-126.

Lambropoulou, A., 1991, The Middle Helladic Period in the Corinthia and the Argolid: An Archaeological Survey, Unpublished PhD thesis, Bryn Mawr College.

Leach, E. R., 1954, Political Systems of Highland Burma: a Study of Kachin Social Structure, London.

Lindblom, M., 2007, Early Mycenaean Mortuary Meals at Lerna VI with Special Emphasis on their Aeginetan Components. In F. Felten, W. Gauss & R. Smetana (eds.), Middle Helladic Pottery and Synchronisms, 115-135. Wien.

Lindblom, M., Manning, S. W., 2011, The Chronology of the Lerna Shaft Graves. In W. Gauss, M. Lindblom, R. A. K. Smith & J. C. Wright (eds.), Our Cups are Full: Pottery and Society in the Aegean Bronze Age. Papers presented to Jeremy Rutter on the occasion of his 65th birthday, 140-153, Oxford.

Macheridis, S., 2016a, The use of multiple correspondence analysis (MCA) in taphonomy: The case of Middle Helladic Asine, Greece, International Journal of Osteoarchaeology, doi:10.1002/oa.2571.

2016b, Home, refuse, and reuse during the EH III to the MH I transitional period: a social zooarchaeological study of the Asine *bothroi*, Opuscula, vol. 9, pp. 71-91.

2017, Symbolic Connotations of Animals at early Middle Helladic Asine. A comparative study of the animal bones from the settlement and its graves, Opuscula 10**,** 128-152.

2018, Waste management, animals and society. A social zooarchaeological study of Bronze Age Asine, Acta Archaeologica Lundensia Series altera in 8o, no 69, Studies in Osteology 3, Lund.

Forthcoming, A zooarchaeological study of the social topography of Asine (Greece) during the late Bronze Age. In Gaastra J. & Greenfield H.J. (eds.), Zooarchaeology of the Metal Ages: Production, Specialisation and Technology during the Copper Age, Bronze and Iron Ages. Lockwood Press.

Manning, S.W., 1995, The Absolute Chronology of the Aegean Early Bronze Age, Monographs in Mediterranean Archaeology 1, Sheffield, Sheffield Academic Press.

Manning, S. W., Ramsey, C. B, Kutschera, W., Higham, T., Kromer, B., Steier, P., Wild, E. M., 2006, Chronology for the Aegean Late Bronze Age1700–1400 BC, Science 312 (5573): 565–69.

Maran, J. 1992, Die Deutschen Ausgrabungen auf de Peukakia Magoula in Thessalien III: Die mittlere Bronzezeit, Beiträge zur ur- und frühgeschichtlichen Archäologie des Mittelmeer-Kulturraumes 30-31, Bonn.

1995, Structural changes in the pattern of settlement during the Shaft Grave period on the Greek mainland. In R. Laffineur, W. Niemeir, eds., Politeia: Society and State in the Aegean Bronze Age, Aegaeum 12, 67-72. Liége.

2007, Emulation of Aeginetan Pottery in the Middle Bronze Age of Coastal Thessaly: Regional Context and Social Meaning. In F. Felten, W. Gauss and R. Smetana (eds.), Middle Helladic pottery and synchronisms, 167–82.

2011, Lost in translation: The emergence of Mycenaean culture as a phenomenon of globalization. In T. Wilkinson, J. Bennet & S. Sherratt (eds), Interweaving Worlds. Systemic Interactions in Eurasia, 7th to 1st Millennia BC, Oxford, 282-294.

Mårtensson, L., 2002, Traces of boxes: linings of wooden boxes in Helladic tombs. In B. Wells (ed.), New Research on Old Material from Asine and Berbati, 43-48, Stockholm.

Mays, S., 1998, The archaeology of human bones, Routledge, New York.

Mee, C. & Cavanagh, W., 1990, The spatial distribution of Mycenaean tombs, BSA 85, 225-243.

Milka, E., 2006a, From cemeteries to societies. The study of the Middle Helladic (2000-1500 BC) burials from the Argolid, southern Greece. Symposium voor Onderzoek door Jonge Archeologen (SOJA) Bundel 2005, 53-63, Leiden.

2006b, Mortuary Differentiation and Social Structure in Middle Helladic Lerna, Southern Greece, 2000-1500 B.C. Archaeological Institute of America, Montreal, Abstracs 2006.

2010, Burials Upon the Ruins of Abandoned Houses in the MH Argolid. In A. Philippa-Touchais, G. Touchais, S. Voutsaki & J. Wright (eds.), Mesohelladika: The Greek Mainland in the Middle Bronze Age, BCH Supplément 52, 347-355.

Moberg Nilsson, K., 1996, Animal bones from Terrace III in the Lower Town of Asine. In R. Hägg, G. C. Nordquist & B. Wells (eds.), Asine III. Supplementary studies on the Swedish excavations 1922-1930, Stockholm, 111-115.

van de Moortel, A., 2016, Politics of Death at Mitrou: Two Prepalatial Elite Tombs in a Landscape of Power. In Dakouri-Hild A. & Boyd M. J. (eds.), Staging Death. Funerary Performance, Architecture and Landscape in the Aegean, 89-113.

Morou, E., 1989, Argos, Archeologikon Deltion 36 (1981), 107-114.

Morris, I., 1987, Burial and ancient society: The Rise of the Greek City-State, New Studies in Archaeology. Cambridge.

1991, The Archaeology of Ancestors: The Saxe/ Goldstein Hypothesis Revisited, Cambridge Archaeological Journal, 1(2):147-169

Mylonas, G.E., 1973, O Tafikos Kyklos B ton Mykinon, Athens.

Nikita, E., 2017, Osteoarchaeology. A Guide to the Macroscopic Study of Human Skeletal Remains, Elsevier.

Nordquist, G.C., 1979, Dead society. A Study of the intramural cemetery at Lerna. Unpublished MA Dissertation, University of Southampton.

1985, Floor deposits on the Barbouna slope at Asine, Hydra 1, 19-29.

1987, A Middle Helladic Village. Asine in the Argolid, Boreas, Uppsala Studies in Ancient Mediterranean and Near Eastern Civilization 16, Uppsala.

1990, Middle Helladic Burial Rites: Some Speculations. In R. Hägg, G.C. Nordquist (eds.), Celebrations of death and Divinity in the Bronze Age Argolid: Proceedings of the 6th International Symposium at the Swedish Institute at Athens, 11-13 June 1988, 35-43, Stockholm.

1996, New Information from Old Graves. In R. Hägg, G.C. Nordquist, B. Wells (eds.), Asine III,1: Supplementary Studies on the Swedish Excavations 1922-1930, Stockholm, (ActAth-4, 45:1), 19-38.

2002, Intra- and Extramural, Single and Collective, Burials in the Middle and Late Helladic Periods. In B. Wells (ed.), New Research on Old Material from Asine and Berbati, 23-29, Stockholm.

(n.d.) (a), The Middle Helladic finds from the Barbouna slope at Asine. The excavations 1973-74 and 1989. Unpublished manuscript.

(n.d.) (b), Work in the Barbouna Sector at Asine: Field Report 1989. Unpublished manuscript.

(n.d.) (c), Excavations in Area II 1973-1974 [Barbouna]. Unpublished manuscript.

Nordquist, G.C., Ingvarsson- Sundström, A., 2005, Live hard, die young: mortuary remains of middle and early late Helladic children from the Argolid in social context. In A. Dakouri-Hild & S. Sherratt (eds.), AUTOCHTHON: Papers presented to O.T.P.K. Dickinson on the occasion of his retirement, 156-174. BAR IS 1432, Oxford.

O' Shea, J., 1984, Mortuary Variability, New York.

Pader, E.J., 1982, Symbolism, Social Relations and the Interpretation of Mortuary Remains (British Archaeological Reports, International Series 130).

Papachristodoulou, I., 1967, Lerni (Myloi), Oikopedon Manti, ΑΔ 22: chronika, 182, fig. 131.

Papadimitriou, A., 1994, Argos, ΑΔ 49 Β', 128-132.

2010, Oi anaskafes sto Mouseio tou Argous. In A. Philippa-Touchais, G. Touchais, S. Voutsaki & J. Wright (eds.), Mesohelladika: The Greek Mainland in the Middle Bronze Age, BCH Supplément 52, 45-55.

Papadimitriou, N., 2001a, Built Chamber Tombs of Middle and Late Bronze Age Date in Mainland Greece and the Islands, BAR International Series 925.

2001b, T.164. An early LH built chamber tomb from Argos, BSA 96, 41-79.

Papadimitriou, N., Philippa-Touchais, A. & Touchais, G., 2015, Argos in the MBA and the LBA. A reassessment of the evidence. In Schallin A. & Tournavitou I. (eds.),

Mycenaeans Up to Date. The archaeology of the north-eastern Peloponnese. Current concepts and new directions, Stockholm, 161-184.

Papathanasiou, A., **1999,** A Bioachaeological Analysis of Health, Subsistence, and Funerary Behavior in the Eastern Mediterranean Basin: a case study from Alepotrypa Cave, Greece, PhD Dissertation, University of Iowa.

Pariente, A., Touchais, G. (eds.), 1998, Argos et l'Argolide. Topographie et Urbanisme, Actes de la Table Ronde Internationale, Athènes-Argos 28/04-1/5/1990.

Parker-Pearson, M., 1993, The Powerful Dead: Archaeological Relationships between the Living and the Dead, Cambridge Archaeological Journal, 3(2):203-229

1999, The Archaeology of Death and Burial, Sutton Publishing.

Pavúk, P., Horejs, B.H., 2012, Mittel- und Spätbronzezeitliche Keramik Griechenlands. Sammlung Fritz Schachermeyr 3. Österreichische Akademie der Wissenschaften Philosophisch-Historische Klasse Denkschriften 439, Veröffentlichungen der mykenischen Kommission 31. Vienna, Verlag der Österreichischen Akademie der Wissenschaften.

Petrakis, V.P., 2010, Diversity in form and practice in Middle Helladic and Early Mycenaean elaborate tombs: an approach to changing prestige expression in changing time. In A. Philippa-Touchais, G. Touchais, S. Voutsaki & J. Wright (eds.), Mesohelladika: The Greek Mainland in the Middle Bronze Age, BCH Supplément 52, 403-416.

Piérart, M., G. Touchais, 1996, Argos. Une Ville Grecque de 6000 ans. Paris.

Phialon, L., 2011, L'émergence de la civilisation mycénienne en Grèce centrale, Aegaeum 32, Leuven, Peeters.

Philippa-Touchais, A., 2002, Aperçu des céramiques mésohelladiques à décor peint de l'Aspis d'Argos. I. La céramique à peinture mate, BCH 126, 1-40.

2003, Aperçu des céramiques mésohelladiques à décor peint de l'Aspis d'Argos. II. La céramique à peinture lustrée, BCH 127, 1-47.

2007, Aeginetan matt-painted pottery at Middle Helladic Aspis, Argos. In F. Felten, W. Gauss and R. Smetana (eds.), Middle Helladic pottery and synchronisms, 97-114.

2010, Settlement planning and social organisation in Middle Helladic Greece. In A. Philippa-Touchais, G. Touchais, S. Voutsaki & J. Wright (eds.), Mesohelladika: The Greek Mainland in the Middle Bronze Age, BCH Supplément 52, 781-801.

2011, Cycles of collapse in Greek prehistory: reassessing social change at the beginning of the Middle Helladic and the Early Iron Age. In A. Mazarakis (ed.), The 'Dark Ages' revisited: Acta of an international symposium in memory of William D.E. Coulson, Volos, 31-44.

2013, Les tombes intra muros de l'Helladique Moyen à la lumière des fouilles de l'Aspis d'Argos. In D. Mulliez & A. Banaka-Dimaki (eds.), Sur les pas de Wilhelm Vollgraff. Cent ans d'activités archéologiques à Argos. Actes du colloque international organisé par la IVe EPKA et l'École française d'Athènes, 25-28 Septembre 2003, Recherches Franco-Helléniques, IV, 75-100.

2016, The Middle Bronze Age Fortifications on the Aspis Hill at Argos. In Frederiksen R., Móth S., Schneider P.I. & Schnelle M. (eds.), Focus on Fortifications. New Research on Fortifications in the Ancient Mediterranean and the Near East, Monographs of the Danish Institute at Athens, Volume 18, 645-661.

Philippa-Touchais, A., Touchais, G., 2000, Rapport sur les travaux de l'École française d'Athènes en 1999. Argos. Aspis, BCH 124, 762-753.

2001, Rapport sur les travaux de l'École française d'Athènes en 2000. Argos. Aspis, BCH 125, 563-580.

2002 (with a contribution by S. Triantaphyllou), Rapport sur les travaux de l' Ecole française d' Athènes en 2001: Argos, Aspis, BCH 126:2, 499-500.

2006, Rapport sur les travaux de l'École française d'Athènes. Argos. Aspis, BCH 130, 714-721.

2007, Rapport sur les travaux de l'École française d'Athènes. Argos. Aspis, BCH 131, 960-971.

2011, Fragments of Pottery Equipment of an Early MH Household from Aspis, Argos. In W. Gauss, M. Lindblom, R. A. K. Smith & J. C. Wright (eds.), Our Cups are Full: Pottery and Society in the Aegean Bronze Age. Papers presented to Jeremy Rutter on the occasion of his 65th birthday, Oxford, 203-216.

2016, Glow in the 'Dark': A Gold Pendant from a Middle Helladic Settlement (Aspis, Argos), AEGIS 10, 275-293.

Philippa-Touchais, A., Papadimitriou, N., 2015, Deiras, Argos: The Mycenaean Cemetery Revisited in the Light of Unpublished Finds from W. Vollgraff's excavations. In Schallin A. & Tournavitou I. (eds.), Mycenaeans Up to Date. The archaeology of the north-eastern Peloponnese. Current concepts and new directions, Stockholm, 449-467.

Philippa-Touchais, A., Touchais, G., Voutsaki, S., Wright, J., 2010, Mesohelladika: The Greek mainland in the Middle Bronze Age, BCH Suppl. 52. Athens, École française d'Athènes.

Philippa-Touchais, A., Touchais, G., Balitsari, A., Forthcoming, The Social Dynamics of Argos in a Constantly Changing Landscape (MH II- LH II). In B. Eder & M. Zavadil (eds.), Social Place and Space in Early Mycenaean Greece, International Discussions in Mycenaean Archaeology, 5th-8th October, 2016 in Athens.

Pomadère, M., 2010, De l'indifférenciation à la discrimination spatiale des sépultures? Variété des comportements à l'égard des enfants morts pendant l' HM-HR I. In A. Philippa-Touchais, G. Touchais, S. Voutsaki & J. Wright (eds.), Mesohelladika: The Greek Mainland in the Middle Bronze Age, BCH Supplément 52, 417-429.

Protonotariou -Deilaki, E., 1961, Mikra skafi tafon an Mylois Argolidos, AE 1955 [1961], 1-8.

1974, Chronika, Argos, Deltion 26, B' 1 (1971), 74-84.

1977, Chronika, Argos, Deltion 28, B' 1 (1973), 94-122.

1980, Oi tymboi tou Argous, PhD diss., University of Athens.

Rahmstorf, L., 2003, The Identification of Early Helladic Weights and their Wider Implications. In K.P. Foster, R. Laffineur (eds.), Metron. Measuring the Aegean Bronze Age. Aegaeum 24, 293-299. Liège & Austin.

Rambach, J., 2010, Recent research in Middle Helladic sites of the Western Peloponnese. In A. Philippa-Touchais, G. Touchais, S. Voutsaki & J. Wright (eds.), Mesohelladika: The Greek Mainland in the Middle Bronze Age, BCH Supplément 52, 107-119.

Reese, D., 2008, Faunal Remains from Late Helladic Lerna (Argolid, Greece), Mediterranean Archaeology and Archaeometry 8:1, 5-25.

Robb, J.E., 1994, Burial and Social Reproduction in the Peninsular Italian Neolithic, Journal of Mediterranean Archaeology, 7(1):27-71.

2002, Time and biography. Osteobiography of the Italian Neolithic lifespan. In Y. Hamilakis, M. Pluciennik and S. Tarlow (eds.), Thinking through the body. Archaeologies of corporeality. New York, Kluwer Academic/ Plenum Publishers, 153-171.

Roux, G., 1957, Argos, BCH 81, 638.

Ruppenstein, F., 2010, Gender and Regional Differences in Middle Helladic Burial Customs. In A. Philippa-Touchais, G. Touchais, S. Voutsaki & J. Wright (eds.), Mesohelladika: The Greek Mainland in the Middle Bronze Age, BCH Supplément 52, 433-443.

Rutter, J.B., 2001, Review of Aegean Prehistory II: The Prepalatial Bronze Age of the Southern and Central Greek Mainland. In Cullen, T. (ed.), Aegean Prehistory: A Review. Boston, 95-155.

2007, Reconceptualising the Middle Helladic 'type site' from a ceramic perspective: Is 'bigger' really 'better'? In F. Felten, W. Gauss and R. Smetana (eds.), Middle Helladic pottery and synchronisms, 35-44.

Sarri, K., 2007, Aeginetan Matt-painted Pottery in Boeotia**.** In F. Felten, W. Gauss and R. Smetana (eds.), Middle Helladic pottery and synchronisms, 151–166.

2016, Intra, Extra, Inferus and Supra Mural Burials of the Middle Helladic Period: Spatial Diversity in Practice. In Dakouri-Hild A. & Boyd M. J. (eds.), Staging Death. Funerary Performance, Architecture and Landscape in the Aegean, 117-138.

Sarri, K., Voutsaki, S., 2011, The Argos 'Tumuli'. A re-examination. In S. Müller-Celka & E. Borgna (eds), Ancestral Landscapes: Burial Mounds in the Copper and Bronze Ages, 433-443. Travaux de la Maison de l'Orient, Lyon.

Saxe, A.A., 1971, Social Dimensions of Mortuary Practises in a Mesolithic Population from Wadi Halfa, Sudan. In J. Brown (ed.), Approaches to Social Dimensions of Mortuary Practices, Washington DC, Memoir of the Society for American Archaeology, 25: 39-57.

Sofaer Derevenski, J., 1997, Linking age and sex as social variables, Ethnographish-Archäologischen Zeitschrift 38 (3-4), 485-493.

2000a, Material culture shock: confronting expectations in the material culture of children. In J. Sofaer Derevenski (ed.), Children and material culture, 3-16, London, Routledge.

2000b, Rings of life: the role of early metalwork in mediating the gendered life course, World Archaeology 31 (3), 389-406.

2002, Engendering context: context as gendered practice in the Early Bronze Age of the Upper Thames Valley, UK, European Journal of Archaeology 5 (2), 191-211.

Sofaer Derevenski, J., Sørensen, M.L.S, 2013, Death and Gender. In Nilsson-Stutz L. and Tarlow S. (eds.), Oxford Handbook of Death and Burial, 528-541.

Sørensen, M. L S., 2000, Gender Archaeology, Cambridge: Polity Press.

Spencer, L., 2010, The Regional Specialisation of Ceramic Production in the EH III through MH II Period. In A. Philippa-Touchais, G. Touchais, S. Voutsaki & J. Wright (eds.), Mesohelladika: The Greek Mainland in the Middle Bronze Age, BCH Supplément 52, 669-681.

Stoodley, N., 2000, From the Cradle to the Grave: Age Organization and the Early Anglo-Saxon Burial Rite, World Archaeology, Vol. 31, No. 3, 456-472.

Stravopodi, E., 1993, An Anthropological Assessment of the Human Findings from the Cave and the Cemetery. In A. Sampnon (ed.), Skoteini in Tharounia. The cave, the settlement, the cemetery, 378-391.

Tainter, J.A., 1978, Mortuary Practices and the Study of Prehistoric social systems. In M.B. Schiffer (ed.), Advances in Archaeological Method and Theory, 1:105-141.

Tarlow, S., 1999, Bereavement and Commemoration: an archaeology of mortality. Oxford, Blackwell New York, Academic Press.

2002, Bodies, selves and individuals. Introduction. In Y. Hamilakis, M. Pluciennik and S. Tarlow (eds.), Thinking through the body. Archaeologies of corporeality. New York, Kluwer Academic/ Plenum Publishers, 23-27.

Thomas, J., 1999, Understanding the Neolithic. Routledge. London and New York.

Touchais, G., 1975, Aspis, BCH 99: 707-8.

1976, Aspis, BCH 100: 755-8.

1978, Aspis, BCH 102: 798-802.

1980, Aspis, BCH 104: 698-9.

1984, Aspis, BCH 108: 850-2.

1990, Aspis, BCH 114: 872-3.

1991, Aspis, BCH 115: 682-6.

1998, Argos a l'epoque Mesohelladique: Un habitat ou des habitats? In A. Pariente & G. Touchais (eds.), Argos et l' Argolide: Topographie et Urbanisme, Paris, 71-84.

2007, Coarse ware from the Middle Helladic settlement of Aspis, Argos: Local production and imports. In F. Felten, W. Gauss and R. Smetana (eds.), Middle Helladic pottery and synchronisms, 81-96.

Triantaphyllou, S., 1999, A Bioarchaeological Approach to Prehistoric Cemetery Populations from Western and Central Greek Macedonia, PhD Dissertation, University of Sheffield.

2006, Re-visiting Middle Helladic Lerna: a re-examination of human skeletal remains, Archaeological Institute of America, Montreal, Abstracts 2006.

2010a, Prospects for Reconstructing the Lives of Middle Helladic Populations in the Argolid: Past and Present of Human Bone Studies. In A. Philippa-

Touchais, G. Touchais, S. Voutsaki & J. Wright (eds.), Mesohelladika: The Greek Mainland in the Middle Bronze Age, BCH Supplément 52,553-565.

2010b, Unfolding Life Histories in the Argive Plain in the Middle Helladic Period: A Comparative Analysis of the Human Skeletal remains from Lerna, Argos and Mycenae, Bulletin of the Institute of Classical Studies, 53, 2: 130-131.

in preparation, Unfolding Life Histories in the Argive Plain in the Middle Helladic Period: A comparative analysis of the human skeletal remains from Lerna, Argos and Mycenae.

(n.d), Report on the Aspis skeletons (in Greek).

Triantaphyllou, S., Richards, M., Zerner, C., Voutsaki, S., 2008a, Isotopic dietary reconstruction of humans from Middle Bronze Age Lerna, Argolid, Greece, Journal of Archaeological Science, 35, 3028-3034.

Triantaphyllou, S., Richards, M., Touchais, G., Philippa-Touchais, A., Voutsaki, S., 2008b, Analyses of Middle Helladic Skeletal Material from Aspis, Argos, 2. Stable isotope analysis of human remains, BCH, 130.2 (2006), 627-637.

Triger, B., 1989, A History of Archaeological Thought, Cambridge University Press.

Vollgraff, W., 1906, Fouilles d' Argos, BCH 30, 5-45.

Voutsaki, S., 1993, Society and Culture in the Mycenaean World: an Analysis of Mortuary Practices in the Argolid, Thessaly and the Dodecanese, Ph.D. dissertation, University of Cambridge.

1997, The Creation of Value and Prestige in the Late Bronze Age Aegean, Journal of European Archaeology 5(2), 34-52.

1998, Mortuary evidence, symbolic meanings and social change: a comparison between Messenia and the Argolid. In K. Branigan (ed.), Cemetery and Society in the Aegean Bronze Age, Sheffield, 41-58

2004, Age and Gender in the Southern Greek Mainland, 2000-1500 BC, Ethnographisch-Archäologische Zeitung 45, 339-363.

2005, Social and Cultural Change in the Middle Helladic Period: Presentation of a New Project. In A. Dakouri-Hild & S. Sherratt, eds., AUTOCHTHON: Papers presented to O.T.P.K. Dickinson on the occasion of his retirement, 134-143. BAR IS 1432, Oxford.

2010a, Agency and Personhood at the Onset of the Mycenaean period, Archaeological Dialogues 17:1, 65-92.

2010b, The Argolid. In E. Cline (ed.), Oxford Handbook for Aegean Archaeology, 598-613. Oxford.

2010c, The Domestic Economy in Middle Helladic Asine. In A. Philippa-Touchais, G. Touchais, S. Voutsaki & J. Wright (eds.), Mesohelladika: The Greek Mainland in the Middle Bronze Age, BCH Supplément 52, 765-779.

2010d, The Middle Bronze Age. Mainland Greece. In E. Cline (ed.), Oxford Handbook for Aegean Archaeology, 99-112. Oxford.

2010e, From the Kinship Economy to the Palatial Economy: The Argolid in the 2nd Millennium BC. In Pullen, D. (ed.), Political Economies of the Aegean Bronze Age, Proceedings of the Langford Spring Conference 2007. Florida State University, 24-25 February 2007, 86-111, Oxford.

2012, From Value to Meaning, from Things to Persons. In G. Urton & J. Papadopoulos (eds.), The construction of value in the ancient world, Monographs of UCLA, Kotsen Institute, Los Angeles, 160-185.

2016, From Reciprocity to Centricity: The Middle Bronze Age in the Greek Mainland. In M. Galaty, D. Nakassis and W. Parkinson (eds.), Reciprocity in Aegean Palatial Societies: Gifts, Debt, and the Foundations of Economic Exchange, American Journal of Archaeology Forum, 70-78.

Forthcoming. The Middle Helladic Argolid Project: Aims, Methods, and Some First Answers. Hesperia.

Voutsaki, S., Triantaphyllou, S., Kouidou-Andreou, S., Kovatsi, L., Milka, E., 2004, Lerna, 2000 – 1500 BC: A pilot analysis, Pharos XI (2003), 75-80.

Voutsaki, S., Triantaphyllou, S., Milka, E., 2005, Project on the Middle Helladic Argolid: a report on the 2004 season, Pharos XII (2004), 31-40.

Voutsaki, S., Triantaphyllou, S., Ingvarsson-Sundström, A., Kouidou-Andreou, S., Kovatsi, L., Nijboer, A., Nikou, D., Milka, E., 2006, Project on the Middle Helladic Argolid: a report on the 2005 season, Pharos XIII (2005), 93-117.

Voutsaki, S., Triantaphyllou, S., Ingvarsson-Sundström, A., Sarri, K., Richards, M., Nijboer, A., Kouidou-Andreou, S., Kovatsi, L., Nikou, D., Milka, E., 2007, Project on the Middle Helladic Argolid: a report on the 2006 season, Pharos XIV (2006), 59-99.

Voutsaki, S., Nijboer, A.J., Philippa-Touchais, A., Touchais, G., Triantaphyllou, S., 2008, Analyses of Middle Helladic Skeletal Material from Aspis, Argos, 1. Radiocarbon analysis of human remains, BCH, 130:2 (2006), 613-625.

Voutsaki, S., Ingvarsson-Sundström, A., Richards, M., 2009a, Project on the Middle Helladic Argolid: a report on the 2007 season, Pharos XV (2007), 137-152.

Voutsaki, S., Sarri, K., Dickinson, O., Triantaphyllou, S., Milka, E., 2009b, The Argos 'Tumuli' Project: a report on the 2006 and 2007 seasons, Pharos XV (2007), 153-192.

Voutsaki, S., Nijboer, A.J., Zerner. C., 2009c, Middle Helladic Lerna: Relative and Absolute Chronologies. In S.W. Manning & M.J. Bruce (eds.), Tree-rings, Kings, and Old World Archaeology and Environment: Papers Presented in Honour of Peter Ian Kuniholm, 151-161. Oxford.

Voutsaki, S., Dietz, S., Niiboer, A., 2010, Radiocarbon Analyses and the History of the East Cemetery, Asine, Opuscula Atheniensia 2, 31-52.

Voutsaki, S., Ingvarsson-Sundström, A., Dietz, S., 2011, Tumuli and Social Status: a Re-examination of the Asine Tumulus. In S. Müller-Celka & E. Borgna (eds), Ancestral Landscapes: Burial Mounds in the Copper and Bronze Ages, 445-460. Travaux de la Maison de l'Orient, Lyon.

Voutsaki, S., **Milka, E., Triantaphyllou, S., Zerner, C., 2013,** Middle Helladic Lerna: Diet, Economy, Society. In S. Voutsaki and S.M. Valamoti (eds.), Diet, Economy and Society in the Ancient Greek World: towards a better integration of archaeology and science. Proceedings of the international conference held at the Netherlands Institute at Athens 22-24 March 2010, Leuven, 133-147.

Voutsaki, S., **Milka, E., 2016,** Social change in Middle Helladic Lerna. In C. W. Wiersma and S. Voutsaki (eds.), Social Change in Aegean Prehistory, 98-123.

Voutsaki, S., Nijboer, A.J., Zerner, C., Forthcoming, Radiocarbon analysis from Middle Helladic Lerna: a Final Report. Hesperia.

Voutsaki S., Zerner C., Forthcoming, Social differentiation in MH Lerna: the evidence from houses, Hesperia.

Warren, P., Hankey, V., 1989, The Absolute Chronology of the Aegean Bronze Age. Bristol: Bristol Classical Press**.**

Whitley, J., 2002, Too many Ancestors, Antiquity 76, 119-126.

Whittaker, H., 2009, Memory and Cultural Values in the Middle Helladic Period. Some Preliminary Thoughts. In Georgiadis M. and Gallou C. (eds.), Past in the Past: The Significance of Memory and Tradition in the Transmission of Culture, Archaeopress, Oxford, 5-15.

2010, Some thoughts on Middle Helladic religious beliefs and ritual and their significance in relation to social structure. In A. Philippa-Touchais, G. Touchais, S. Voutsaki & J. Wright (eds.), Mesohelladika: The Greek Mainland in the Middle Bronze Age, BCH Supplément 52, 535-543.

2014, Religion and society in Middle Bronze Age Greece. Cambridge University Press.

Wiersma, C. W., 2013, Building the Bronze Age. Architectural and Social Change on the Greek Mainland During Early Helladic III, Middle Helladic and Late Helladic I. Unpublished PhD dissertation, University of Groningen.

2014, Building the Bronze Age. Architectural and Social Change on the Greek Mainland During Early Helladic III, Middle Helladic and Late Helladic I, Archaeopress Archaeology.

Wiersma, C. W., & Voutsaki, S. (eds.), 2016, Social Change in Aegean Prehistory. Oxbow.

Wright, J.C., 1987, Death and power at Mycenae: changing symbols in mortuary practice. In Laffineur R. (ed.), Thanatos. Les Coutumes Funéraires en Égée à l' Âge du Bronze, Aegaeum 1, Liege, 171-184.

2001, Factions and the Origins of Leadership and Identity in Mycenaean Society, Bulletin of the Institute of Classical Studies of the University of London, 45: 182.

2004a, A survey of evidence of feasting in Mycenaean society. In J.C. Wright (ed.), The Mycenaean Feast, 13-58.

2004b, The Emergence of Leadership and the Rise of Civilization in the Aegean. In J.C. Barrett & P. Halstead (eds), The Emergence of Civilisation Revisited, 64-89. Sheffield Studies in Aegean Archaeology 6. Oxford.

2008, Early Mycenaean Greece. In C.W. Shelmerdine (ed.), The Cambridge Companion to the Aegean Bronze Age, 230-257, Cambridge: Cambridge University Press.

2010a, Towards a social archaeology of Middle Helladic Greece. In A. Philippa-Touchais, G. Touchais, S. Voutsaki & J. Wright (eds.), Mesohelladika: The Greek Mainland in the Middle Bronze Age, BCH Supplément 52, 803-815.

2010b, Approaches to the study of personhood in the early Mycenaean era, Archaeological Dialogues 17:1, 100-105.

Zangger, E., 1993, The Geoarchaeology of the Argolid, Argolis II, Berlin.

1994, The Island of Asine: a Palaeogeographic Reconstruction, Opuscula Atheniensia XX:15, 221-239.

Zavadil, M., 2013, Monumenta: Studien zu mittel- und späthelladischen Gräbern in Messenien. Mykenische Studien 33, Österreichische Akademie der Wissenschaften Philosophisch-Historische Klasse Denkschriften 450. Vienna, Verlag der Österreichischen Akademie der Wissenschaften.

Zerner, C., 1978, The Beginning of the Middle Helladic Period at Lerna. Diss., University of Cincinnati.

1986, Middle Helladic and Late Helladic I Pottery from Lerna, Hydra 2, 58-74.

1987, Middle Bronze Age and Late Bronze Age pottery from Lerna in the Argolid. Pottery from stratified deposits. Not including the Lerna shaft Graves. Privately distributed for the Middle Bronze Age Seminar held in the Argos Museum, August 5-6 1987.

1988, Middle Helladic and Late Helladic I Pottery from Lerna: Part II, Shapes, Hydra 4, 1-52.

1990, Ceramics and ceremony: Pottery and burials from Lerna in the Middle and early Late Bronze Ages. In Hägg, R. and Nordquist, G. C. (eds.), Celebrations of Death and Divinity in the Bronze Age Argolid: Proceedings of the 6th International Symposium at the Swedish Institute at Athens, 11-13 June 1988. Stockholm, Paul Åström, 23-34.

2004, Lerna V: Area D. Privately distributed for the International Workshop 'MH Pottery and Synchronisms' held in Salzburg, 31 October-2 November 2004.

Summary

This PhD thesis, entitled *"Mortuary differentiation and social structure in the Middle Helladic Argolid, 2000-1500 BC"*, was carried out as part of the VIDI project "*Shifting Identities: Social Change and Cultural Interaction in the Middle Helladic Argolid, 2000 - 1500 BC"*, funded by the Netherlands Organisation for Scientific Research (NWO).

Until recently the Middle Helladic period was described as homogeneous and static. However, recent research has shown regional variability, early changes and more complexity. Here the archaeological data from selected sites in the Argolid were analysed to determine if there was variation between individual burials, groupings and cemeteries, and to reconstruct change through time. In addition, the results of the radiocarbon, archaeological and anthropological analyses were integrated in order to reconstruct variation within and between communities, as well as change through time. This analysis was carried out for Lerna, Myloi, Kastraki, Barbouna and the EC of Asine, and for Aspis in Argos.

The basic question addressed in this dissertation was: What does the mortuary patterning tell us about the social structure of MH society? The question was addressed by examining, spatial variation between the burials and change through time. In every chapter, I first discussed variation along of age and gender, then turned to wealth and elaboration as criteria of differentiation and concluded by examining the importance of kinship. The discussion on variation and differentiation was accompanied by a systematic exploration of change in all these different facets of identity. The degree and nature of differentiation in the mortuary record was discussed in each section.

In Lerna age and kinship, and to a lesser extent gender were the primary principles structuring mortuary practices. Most of the differences in the burial assemblage were observed between age groups, while the existence of grave groups, their coherence and permanence and their close association with free standing houses underlines the importance of kinship. The alternation between houses and graves in the same location express also a concern with descent and possibly with the transmission of property. The emphasis seems to have been placed on descent and continuity within the family, and not on social memory, i.e. commemoration within wider kin groups or the community as a whole.

In Myloi, although a small part of the cemetery has been excavated and anthropological study of the skeletons is missing, it seems that age was once more the main criterion for inclusion in the cemetery.

Changes have been observed throughout the period in different aspects of the burial assemblage. Important changes have been noticed already in MH I–II, while in MH II and in the transitional MH III/LH I their rate intensifies.

Age and probably kinship were the main principles structuring social life in Kastraki, as revealed from the burials. The grouping of burials of similar age highlights age distinctions, while family relations were not emphasized as much as in other sites, notably in Lerna. In Kastraki the importance of kinship was manifested by the shared features within burial groups and their close relation to free-standing houses. In contrast with Lerna, the emphasis in Kastraki seems to have been placed less on descent and continuity within the family and more on social memory, i.e. commemoration within of wider kin groups.

At the extramural tumulus cemetery of Asine common descent was emphasized not only by the formation of a conspicuous and distinct burial ground, but also by the shared practices followed. The novel cemetery type and the use of a new grave form, i.e. of large pithoi for adult burials, reveal a different burial ideology from the one shared among the people burying their dead inside the settlement. It can therefore be suggested that people buried at the East Cemetery were emphasizing their common descent and at the same time their difference from the rest of the population. Subtle differences in the grave types and offerings between the burials in the East Cemetery can be observed. These differences were present already from the MH I-II period but became more emphasized during the MH III-LH I period. However, the fact that many graves were unfurnished indicates that wealth was not the main criterion for inclusion in the cemetery.

Age and probably kinship were important criteria of differentiation in the late MH settlement of Barbouna. Gender differences became slightly more pronounced than in the earlier phases in Kastraki, while status differences may be observed, especially among the latest graves, but they were never pronounced.

In general, different groups living in Asine were trying to create their status, to emphasise their common descent and to differentiate themselves by using different burial practices. Rather than a clearly differentiated system, a local elite which exclusively used one burial place, the mortuary pattern reveals that different groups

negotiated their status by expressing their differences. A dynamic tension was thereby created in MH III-LH I society, if not earlier. The group using the East Cemetery clearly tried to differentiate themselves during the MH I-II and during the transitional MH III/LH I.

Age seems to have been an important, though not overriding social criterion in the MH III-LH I Aspis. On basis of the restricted data, gender may have been an important criterion of differentiation -though once more it was not absolute. In general, differentiation between individuals in terms of 'wealth' was minimal in the Aspis. Perhaps surprisingly kinship and common descent were less emphasised in the Aspis than in other settlements. The graves form groups which were primarily based on age, and were relatively short-lived. In addition, they were not related directly with houses, as they were opened in free spaces between the houses.

To conclude, the thorough analysis of all the available data has shown that in all cemeteries, and throughout the period kinship was the most important structuring criterion and age position in the kin network the most important facet of identity. Gender was less emphasised but became more important during the MH III-LH I period in some, but not all sites. However, the way and the extent to which kin relations and age differentiation were expressed differed from site to site.

On the other hand, the existence of elite groups or of aggrandizing leaders of factions was not confirmed for the greater part of the MH period. The working hypothesis of the *Shifting Identities* project has been that as authority was embedded in kin relations in the MH period, it did not require ostentatious gestures, impressive houses or rich graves for its legitimation. The contextual analyses of the mortuary data from Lerna, Asine and the Aspis support this hypothesis. Personal status emerges as a criterion of differentiation only during the later part of the MH III and the LH I period.

I would like therefore to propose that instead of local elites or faction leaders already present in the MH II period, the burial pattern reveals a rather fluid situation, perhaps arising from continuous negotiation between social groups, most probably kin-related. It can be suggested that some groups or individuals, especially during the later part of the MH period and the transition to LH, were expressing their claims on status, trying to distinguish themselves through burial elaboration and mortuary ritual as well as feasting, rather than legitimate already existing status divisions.

Finally, the contextual analyses of mortuary practices carried out in this thesis allow us to conclude that the MH societies of the Argolid were neither uniform nor static. Change can be observed in different aspects of the mortuary sphere. In general, two major change horizons can be proposed, a first one at the beginning of the MH II and a second one at the transitional MH III/LH I-LH I. However, changes did not occur simultaneously in all sites. Every burial site has its own history and the nature of change differs from site to site. Generally, a steadily 'scaling up' was observed, but it did not affect all sites in the same way.

Samenvatting

Dit proefschrift, getiteld *"Mortuary differentiation and social structure in the Middle Helladic Argolid, 2000-1500 B.C"*, werd uitgevoerd als onderdeel van het VIDI-project *Shifting Identities: Social Change and Cultural Interaction in the Middle Helladic Argolid, 2000 - 1500 BC*, gefinancierd door de Nederlandse Organisatie voor Wetenschappelijk Onderzoek (NWO).

Tot voor kort werd de Midden Helladische periode beschreven als homogeen en statisch, maar recent onderzoek heeft regionale variabiliteit, vroege veranderingen en meer complexiteit aangetoond. In dit onderzoek zijn archeologische gegevens van geselecteerde sites in Argolis geanalyseerd om te bepalen of er verschillen zijn tussen individuele graven, gegroepeerde graven en begraafplaatsen, en om verandering door de tijd heen te reconstrueren. In additie, is informatie uit koolstofdateringen, de archeologie en de fysische antropologie geïntegreerd om de variatie binnen en tussen gemeenschappen te reconstrueren, evenals verandering door de tijd heen. Dit is onderzocht voor Lerna, Myloi, Asine (Kastraki, Barbouna en East Cemetery), alsook voor de Aspis in Argos.

De centrale vraag die in dit proefschrift luidt: Wat vertellen patronen in de grafcultuur ons over de sociale structuur van de Midden Helladische (hierna genoemd: MH) samenleving? Om deze vraag te beantwoorden is ruimtelijke variatie tussen de graven en verandering door de tijd onderzocht. In elk hoofdstuk wordt eerst ingegaan op de aspecten van variatie in leeftijd en sekse. Daarna ga ik in op rijkdom en uitingen van daarvan als criteria van differentiatie en vervolgens sluit ik de discussie door het belang van verwantschap te onderzoeken. Daaropvolgend bekijk ik veranderingen door de tijd heen in alle bovengenoemde aspecten. Ook bespreek ik in elke sectie de mate en aard van differentiatie in de grafcultuur.

In Lerna vormden leeftijd en verwantschap en, in mindere mate, sekse de belangrijkste principes die de gebruiken van de grafcultuur structureerden. De meeste verschillen in grafassemblages werden waargenomen tussen verschillende leeftijdsgroepen, terwijl het bestaan van gegroepeerde graven, hun samenhang en duurzaamheid alsook de nauwe associatie met vrijstaande huizen het belang van verwantschap onderstrepen. Ook benadrukt afwisseling tussen huizen en graven op dezelfde locatie het belang van afkomst en mogelijk ook van eigendomsoverdracht. De nadruk lijkt te liggen op afkomst en continuïteit binnen de familie, en niet op de het sociaal geheugen, i.e. het geheugen en de herinneringen van bredere verwantschappen of de gemeenschap als geheel.

Hoewel maar een klein deel van de begraafplaats in Myloi is opgegraven en de fysisch

antropologische studie van de skeletten ontbreekt, lijkt het erop dat ook hier leeftijd het belangrijkste criterium was voor een graf binnen de begraafplaats.

Veranderingen gedurende de periode zijn waargenomen in verschillende aspecten van de grafassemblage. Belangrijke veranderingen worden al opgemerkt in MH I-II. In MH II en in de overgangsperiode tussen MH III / LH I (LH = Laat Helladisch) neem de frequentie van deze veranderingen toe.

In Kastraki onthullen de graven dat leeftijdsgroepen en waarschijnlijk ook verwantschap gelden als de belangrijkste structureringsprincipes van het sociale leven. De gegroepeerde graven van individuen met vergelijkbare leeftijd wijzen op onderscheid op basis van leeftijd, terwijl familierelaties niet zo vaak benadrukt lijken te worden als op andere vindplaatsen, voornamelijk in vergelijking met Lerna. In Kastraki manifesteerde het belang van verwantschap zich door de gemeenschappelijke kenmerken van gegroepeerde graven en hun nauwe relatie tot vrijstaande huizen. In tegenstelling tot Lerna lijkt de nadruk in Kastraki minder te zijn gelegd op afstamming en continuïteit binnen het gezin en juist meer op sociaal geheugen, i.e. de herinnering en het geheugen van bredere verwantschap.

Op de tumulusbegraafplaats buiten de muren van Asine werd de gemeenschappelijke afstamming niet alleen benadrukt door de vorming van een opvallend en apart soort begraafplaats, maar ook door de gedeelde gebruiken die werden nageleefd. Dit nieuwe type begraafplaats en de ingebruikneming van een nieuwe grafvorm, i.e. grote pithoi voor graven van volwassenen, onthullen een andere begravingsideologie dan de ideologie die werd nageleefd door de mensen die hun doden begroeven in de nederzetting. Het is dus mogelijk dat de gemeenschappelijke afkomst van individuen die zijn begraven op de East Cemetery benadrukt werd terwijl tegelijkertijd het verschil met de rest van de bevolking werd aangetoond. Aan de grafgiften en het type graf op de oostelijke begraafplaats zijn verschillen te zien in hoe uitgebreid de begrafenis was. Deze verschillen zijn al te observeren in graven uit de MH I-II periode, maar nemen toe in benadrukking tijdens de MH III-LH I periode. Echter, het feit dat veel graven niet zijn aangekleed geeft aan dat rijkdom niet het belangrijkste criterium was om te worden opgenomen op de begraafplaats.

Leeftijd en waarschijnlijk ook verwantschap waren belangrijke criteria voor differentiatie in de laat MH nederzetting Barbouna. Sekseverschillen worden meer uitgesproken dan in de vroege fases in Kastraki, terwijl statusverschillen, die vooral wordt waargenomen onder de nieuwste graven, niet heel uitgesproken naar voren komen.

Over het algemeen probeerden verschillende groepen in Asine status te creëren door hun gemeenschappelijke afkomst te benadrukken en zich te onderscheiden door het gebruik van

verschillende begrafenispraktijken. In plaats van een lokale elite die uitsluitend één begraafplaats gebruikte, onthult het grafcultuur patroon dat verschillende groepen negotieerden over hun status door het uitdrukken van hun verschillen. Daardoor ontstond een dynamische spanning in de samenleving uit de MH III-LH I periode, zo niet eerder. De groep die de East Cemetery gebruikte, probeerde duidelijk onderscheid te maken tijdens de MH I-II en tijdens de overgangsfase MH III / LH I.
Leeftijd lijkt een belangrijk sociaal criterium te zijn geweest in de MH III-LH I in de Aspis, hoewel dit niet een absoluut gegeven is. Op basis van de beperkte gegevens kan sekse een belangrijk criterium voor differentiatie zijn geweest. Nogmaals, het is geen absoluut gegeven. Over het algemeen was het onderscheid tussen individuen op basis van 'rijkdom' minimaal in de Aspis. Ten slotte werden bij de Aspis verwantschap en gemeenschappelijke afstamming minder benadrukt dan in andere nederzettingen. De graven vormen groepen maar deze groepsvorming was voornamelijk gebaseerd op leeftijd en van relatief korte duur. Bovendien waren ze niet rechtstreeks gerelateerd aan huizen, omdat ze werden gegraven in vrije ruimtes tussen de huizen.

Tot slot heeft een grondige analyse van alle beschikbare gegevens aangetoond dat op alle begraafplaatsen en door de tijd heen verwantschap het belangrijkste structureringsmechanisme was en de leeftijdspositie in het verwantschap de belangrijkste component was. Sekse werd minder benadrukt, maar werd belangrijker tijdens de MH III-LH I periode bij sommige, maar niet alle vindplaatsen. De manier waarop en de mate waarin de relaties binnen het verwantschap en de leeftijdsdifferentiatie tot uitdrukking kwamen, verschilt van vindplaats tot vindplaats. Aan de andere kant is het bestaan van elite groepen of verenigende leiders niet bevestigd voor het grootste deel van de MH periode. Als werkhypothese is voorgesteld dat als autoriteit was ingebed in verwantschapsrelaties in de MH periode, dat opzichtige gebaren, indrukwekkende huizen of rijke graven geen vereiste waren de legitimatie hiervan. De contextuele analyses van de grafcultuurgegevens van Lerna, Asine en de Aspis ondersteunen deze hypothese. Persoonlijke status komt alleen naar voren als criterium van differentiatie tijdens het latere deel van de MH III en de daaropvolgende LH I periode.
Mijn voorstel is daarom dat in plaats van de aanwezigheid van lokale elites of leiders in de MH II periode, het grafcultuurpatroon een vloeiende situatie laat zien, wellicht voortkomend uit voortdurende onderhandelingen tussen sociale groepen, waarschijnlijk tussen verwanten. Gesuggereerd kan worden dat sommige groepen of individuen, vooral tijdens het latere deel van de MH periode en de overgang naar de LH periode, hun aanspraak op status tot uitdrukking

brachten, waarbij ze zich probeerden te onderscheiden door uitgebreide begrafenissen en grafrituelen alsook festiviteiten en feestmaaltijden, in plaats van zich louter te houden aan legitieme, reeds bestaande statusklassen.

Ten slotte laten de contextuele analyses van grafcultuur die in dit proefschrift worden uitgevoerd toe te concluderen dat de MH samenlevingen van Argolis niet uniform of statisch waren. Veranderingen zijn waarneembaar in verschillende aspecten van de grafcultuur. In het algemeen kunnen twee belangrijke periodes van verandering worden voorgesteld, één aan het begin van de MH II en een tweede aan de overgangsfase MH III/LH I-LH I. Echter, veranderingen gebeurden niet bij alle vindplaatsen tegelijkertijd. Elke begraafplaats heeft zijn eigen geschiedenis en de aard van de verandering verschilt van vindplaats tot vindplaats. Over het algemeen werd een gestage 'opschaling' waargenomen, maar dit had niet bij alle vindplaatsen hetzelfde effect.

APPENDIX I

LERNA V: STRAY HUMAN BONES FOUND AMONG THE ANIMAL BONE SAMPLES

Lot No	Bones	Date	Context	Reference	Comments
BA-BB 204	27 skull frgmnts, tooth root, prox. Humerus, 2 dist. Humerus frgmnts, prox. Metapodial, 5 shafts	MH I-II	House 5 (no floor)	Reese, September 2004	In animal bone bag; saved in Argos. Not noted by Gejvall .
BD 399	Pelvis frgmnt	V.3/ MH I late	Above House 20, debris	Reese, September 2004; Gejvall 1969?	In animal bone bag; saved in Argos.
BD 409	Fetus humerus	V.3/ MH I late	West of House 24	Reese, September 2004; Gejvall 1969?	In animal bone bag; saved in Argos
BE 171	Infant: humerus, ulna, pelvis frgmnt., femur	V.3 late-V.4/ MH I/II middle	Room 45	Reese, September 2004	In animal bone bag; saved in Argos. Not noted by Gejvall .
D 597	Mandible	V.2/ MH I		Reese, September 2004	In animal bone bag; saved in Argos. Not noted by Gejvall .
DE 497	2 pelvis frgmnts: male?	V.7, possibly V.6/ MH III	Bothros 4	Reese, September 2004; Gejvall 1969	1 frgmnt removed by Gejvall 1969, 1 frgmnt in animal bone bag, saved in Argos.
G 318	Adult skull frgmnt., phalanx 1	V.3/ MH I late	Bothros GP-1	Reese, September 2004	In animal bone bag; saved in Argos. Not noted by Gejvall .
A11b	Baby frgmnts	V	House M, second phase	Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
A 334	Baby: 2 tibia frgmnts	V.5/ MH II late	Street	Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
A 336	Baby frgmnts	V		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
A 346	Baby skeleton	IV-V		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm. Gejvall 1969 as V.
A 347	Baby femur and tibia frgmnt, adult tibia frgmnt	IV-V early	House D, second phase	Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm. Gejvall 1969 as V.

B 324	Infant tibia, adult scapula frgmnt	IV-V		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
B 1464	Many bones	V.2/ MH I middle		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
B 1472	Newborn frgmnts	V.4/ MH II early		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
B 1483	Adult metacarpus	V.5/ MH II late	Room 98	Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
B 1486	Astragalus, metacarpus frgmnt	V.5/ MH II late		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
BD 16	Skull frgmnt	V.7/ MH III late		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
BD 97	Bones	V		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
BD 162	Newborn tibia	V.5/ MH II late		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
BD 172	Skull frgmnt	V.6a/ MH III early		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
BD 201	Bones	V		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
BD 219	Many bones	V		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
BD 398	Bones	V.3-4/ MH I/II	House 15	Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
BD 400	Newborn bones	V.7/ MH III late		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
BD 406	Baby bones	V.5/ MH II late		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
BD 422	3 baby bones	V.5/ MH II late		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
BD 423	Fetus tibia	IV-V		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
BD 426	Adult skull frgmnts and ulna	V.5/ MH II late		Reese, September	Not saved in Argos; some may be

	frgmnt			2004; Gejvall 1969	in Stockholm.
BE 65	Baby skeleton	V.2/ MH I middle		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
BE 165	Baby frgmnts	V.3 late-V.4/ MH I/II		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
BE 200A	Bones	V.4/ MH II early	Destruction level	Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
BE 207	2 sub-adult skull frgmnts	V.4/ MH II early	Destruction level	Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
BE 380	Bones	V.3 late-V.4/ MH I/II		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
BE 409	Bones	V.2/ MH I middle		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
BE 417	Bones	V.3/ MH I late		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
BF 56	Metacarpus frgmnt	V.7/ MH III late		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
BF 58	Baby os lympanicum	V.6/ MH III early		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
C 22	2 adult metacarpus	V		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
C23B	2 adult metacarpus	V		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
D 185	Human? Frgmnts	V.1/ MH I early		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
D 357	Newborn tibia	V.5/ MH II late		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
D 359	Baby ulna frgmnt	V.5/ MH II late		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
D 391	Adult phalanx	V.6/ MH III early		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
D 563	Baby frgmnts, adult skull frgmnt	IV-V		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm. Gejvall 1969 as IV.

D	Frgmnts	V	Room C	Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
D	Bones	V	Cut 8 (9) IV 25	Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
DE 337	2 astragalus, 5 metatarsals	V.5-6/ MH II/III		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm. Removed by Gejvall .
DE 447	Baby tibia	V.5/ MH II late		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm. Removed by Gejvall .
DE 474	Astragalus	V.5/ MH II late		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
DE 476	Baby ulna frgmnt and femur frgmnt	V.5/ MH II late		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm. Possibly V.4-V.5
DE 483	Newborn femur and tibia	V.6/ MH III early		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
DE 485	Newborn bones	V.6/ MH III early		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
DE 489	Newborn humerus frgmnt	V.5-V.6/ MH II/III		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
DE 490	Radius frgmnt	V.6/ MH III early		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
DE 492	Newborn tibia, adult metacarpus	V.6-V.7 or V.7/ MH III or MH III later		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm. Removed by Gejvall .
DE 493	Newborn humerus	V.6-V.7 or V.7/ MH III or MH III late		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
DE 505	Baby scapula, 2 adult skull frgmnts, adult metacarpus	V.9		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
DE 513	Mandible frgmnt (about 20 years old), 3 adult vertebra	V.11		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
DE 520	2 tibia frgmnts	V.10-V.11		Reese, September	Not saved in Argos; some may be

				2004; Gejvall 1969	in Stockholm.
DE 528	Newborn femur	V.7 or V.6-V.7/ MH III or MH III late		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
DE 531	Newborn ulna	V.7 or V.6-V.7/ MH III or MH III late		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
DE 539	Baby tibia frgmnt	V.8		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm.
DE 541	Baby tibia frgmnt	V.11		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm. Removed by Gejvall .
DE 545	Skull frgmnt	V.9		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm. Removed by Gejvall .
DE 550	Tibia frgmnt	V		Reese, September 2004; Gejvall 1969	Not saved in Argos; some may be in Stockholm. Removed by Gejvall .

APPENDIX II

LERNA: ARM POSITION OF CONTRACTED SKELETONS

A1 (N=4)[219]		Neonate	Infant	Child	Juvenile	YA	PA	MA	OA	Adult	TOTAL
	MH I										**0**
	MH II			1							**1**
	MH III	1						1			**2**
	MH III/LH I										**0**
	LH I										**0**
	SGE		1								**1**
	MH										**0**
	Post SGE										**0**
	TOTAL	**1**	**1**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**4**

Table i: age composition of A1 arm position through time

A1 (N=4)		Sub-adult	Juvenile	Male	Female	TOTAL
	MH I					**0**
	MH II	1				**1**
	MH III	1		1		**2**
	MH III/LH I					**0**
	LH I					**0**
	SGE	1				**1**
	MH					**0**
	Post SGE					**0**
	TOTAL	**3**	**0**	**1**	**0**	**4**

Table ii: age and gender composition of A1 arm position through time

[219] Plus one skeleton A1 or A5: SGE, adult male

A2 (N=7)		Neonate	Infant	Child	Juvenile	YA	PA	MA	OA	Adult	TOTAL
	MH I										**0**
	MH II						3				**3**
	MH III						2				**2**
	MH III/LH I									1	**1**
	LH I										**0**
	SGE										**0**
	MH				1						**1**
	Post SGE										**0**
	TOTAL	**0**	**0**	**0**	**1**	**0**	**5**	**0**	**0**	**1**	**7**

Table iii: age composition of A2 arm position through time

A2 (N=7)		Sub-adult	Juvenile	Male	Female	TOTAL
	MH I					**0**
	MH II			2	1	**3**
	MH III			1	1	**2**
	MH III/LH I			1		**1**
	LH I					**0**
	SGE					**0**
	MH		1			**1**
	Post SGE					**0**
	TOTAL	**0**	**1**	**4**	**2**	**7**

Table iv: age and gender composition of A2 arm position through time

A3 (N=2)		Neonate	Infant	Child	Juvenile	YA	PA	MA	OA	Adult	TOTAL
	MH I	1									**1**
	MH II	1									**1**
	MH III										**0**
	MH III/LH I										**0**
	LH I										**0**
	SGE										**0**
	MH										**0**
	Post SGE										**0**
	TOTAL	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**

Table v: age composition of A3 arm position through time

A3 (N=2)		Sub-adult	Juvenile	Male	Female	TOTAL
	MH I	1				**1**
	MH II	1				**1**
	MH III					**0**
	MH III/LH I					**0**
	LH I					**0**
	SGE					**0**
	MH					**0**
	Post SGE					**0**
	TOTAL	**2**	**0**	**0**	**0**	**2**

Table vi: age and gender composition of A3 arm position through time

A4 (N=7)		Neonate	Infant	Child	Juvenile	YA	PA	MA	OA	Adult	TOTAL
	MH I						1			1	**2**
	MH II			1							**1**
	MH III					1					**1**
	MH III/LH I						1				**1**
	LH I										**0**
	SGE						1				**1**
	MH						1				**1**
	Post SGE										**0**
	TOTAL	**0**	**0**	**1**	**0**	**1**	**4**	**0**	**0**	**1**	**7**

Table vii: age composition of A4 arm position through time

A4 (N=7)		Sub-adult	Juvenile	Male	Female	TOTAL
	MH I				1	**1**
	MH II	1				**1**
	MH III			1		**1**
	MH III/LH I			1		**1**
	LH I					
	SGE			1		**1**
	MH				1	**1**
	Post SGE					
	TOTAL	**1**	**0**	**3**	**2**	**6**

Table viii: age and gender composition of A4 arm position through time

A5 (N=6)		Neonate	Infant	Child	Juvenile	YA	PA	MA	OA	Adult	TOTAL
	MH I					1					**1**
	MH II				1				1		**2**
	MH III						2				**2**
	MH III/LH I						1				**1**
	LH I										**0**
	SGE										**0**
	MH										**0**
	Post SGE										**0**
	TOTAL	**0**	**0**	**0**	**1**	**1**	**3**	**0**	**1**	**0**	**6**

Table ix: age composition of A5 arm position through time

A5 (N=6)		Sub-adult	Juvenile	Male	Female	TOTAL
	MH I			1		**1**
	MH II		1-F	1		**2**
	MH III				2	**2**
	MH III/LH I				1	**1**
	LH I					**0**
	SGE					**0**
	MH					**0**
	Post SGE					**0**
	TOTAL	**0**	**1**	**2**	**3**	**6**

Table x: age and gender composition of A5 arm position through time

A6 (N=1)		Neonate	Infant	Child	Juvenile	YA	PA	MA	OA	Adult	TOTAL
	MH I										**0**
	MH II					1					**1**
	MH III										**0**
	MH III/LH I										**0**
	LH I										**0**
	SGE										**0**
	MH										**0**
	Post SGE										**0**
	TOTAL	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**

Table xi: age composition of A6 arm position through time

A6 (N=1)		Sub-adult	Juvenile	Male	Female	TOTAL
	MH I					**0**
	MH II			1		**1**
	MH III					**0**
	MH III/LH I					**0**
	LH I					**0**
	SGE					**0**
	MH					**0**
	Post SGE					**0**
	TOTAL	**0**	**0**	**1**	**0**	**1**

Table xii: age and gender composition of A6 arm position through time

A7 (N=5)		Neonate	Infant	Child	Juvenile	YA	PA	MA	OA	Adult	TOTAL
	MH I	1									**1**
	MH II				1	1					**2**
	MH III					1					**1**
	MH III/LH I										**0**
	LH I	1									**1**
	SGE										**0**
	MH										**0**
	Post SGE										**0**
	TOTAL	**2**	**0**	**0**	**1**	**2**	**0**	**0**	**0**	**0**	**5**

Table xiii: age composition of A6 arm position through time

A7 (N=5)		Sub-adult	Juvenile	Male	Female	TOTAL
	MH I	1				**1**
	MH II		1-F		1	**2**
	MH III				1	**1**
	MH III/LH I					**0**
	LH I	1				**1**
	SGE					**0**
	MH					**0**
	Post SGE					**0**
	TOTAL	**2**	**1**	**0**	**2**	**5**

Table xiv: age and gender composition of A7 arm position through time

A8 (N=2)		Neonate	Infant	Child	Juvenile	YA	PA	MA	OA	Adult	TOTAL
	MH I										**0**
	MH II						1				**1**
	MH III										**0**
	MH III/LH I										**0**
	LH I										**0**
	SGE										**0**
	MH										**0**
	Post SGE									1	**1**
	TOTAL	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**2**

Table xv: age composition of A8 arm position through time

A8 (N=2)		Sub-adult	Juvenile	Male	Female	TOTAL
	MH I					**0**
	MH II				1	**1**
	MH III					**0**
	MH III/LH I					**0**
	LH I					**0**
	SGE					**0**
	MH					**0**
	Post SGE			1		**1**
	TOTAL	**0**	**0**	**1**	**1**	**2**

Table xvi: age and gender composition of A8 arm position through time

A9 (N=1)		Neonate	Infant	Child	Juvenile	YA	PA	MA	OA	Adult	TOTAL
	MH I										**0**
	MH II							1			**1**
	MH III										**0**
	MH III/LH I										**0**
	LH I										**0**
	SGE										**0**
	MH										**0**
	Post SGE										**0**
	TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**

Table xvii: age composition of A9 arm position through time

A9 (N=1)		Sub-adult	Juvenile	Male	Female	TOTAL
	MH I					**0**
	MH II			1		**1**
	MH III					**0**
	MH III/LH I					**0**
	LH I					**0**
	SGE					**0**
	MH					**0**
	Post SGE					**0**
	TOTAL	**0**	**0**	**1**	**0**	**1**

Table xviii: age and gender composition of A9 arm position through time

A10 (N=4)[220]		Neonate	Infant	Child	Juvenile	YA	PA	MA	OA	Adult	TOTAL
	MH I		1								**1**
	MH II				1						**1**
	MH III						1				**1**
	MH III/LH I	1									**1**
	LH I										**0**
	SGE										**0**
	MH										**0**
	Post SGE										**0**
	TOTAL	**1**	**1**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**4**

Table xix: age composition of A10 arm position through time

A10 (N=4)		Sub-adult	Juvenile	Male	Female	TOTAL
	MH I	1				**1**
	MH II		1-F			**1**
	MH III				1	**1**
	MH III/LH I	1				**1**
	LH I					**0**
	SGE					**0**
	MH					**0**
	Post SGE					**0**
	TOTAL	**2**	**1**	**0**	**1**	**4**

Table xx: age and gender composition of A10 arm position through time

[220] plus 1 skeleton A10 or A13: MH II, infant

A11 (N=1)		Neonate	Infant	Child	Juvenile	YA	PA	MA	OA	Adult	TOTAL
	MH I										**0**
	MH II										**0**
	MH III			1							**1**
	MH III/LH I										**0**
	LH I										**0**
	SGE										**0**
	MH										**0**
	Post SGE										**0**
	TOTAL	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**

Table xxi: age composition of A11 arm position through time

A11 (N=1)		Sub-adult	Juvenile	Male	Female	TOTAL
	MH I					**0**
	MH II					**0**
	MH III	1				**1**
	MH III/LH I					**0**
	LH I					**0**
	SGE					**0**
	MH					**0**
	Post SGE					**0**
	TOTAL	**1**	**0**	**0**	**0**	**1**

Table xxii: age and gender composition of A11 arm position through time

B1 (N=1)[221]		Neonate	Infant	Child	Juvenile	YA	PA	MA	OA	Adult	TOTAL
	MH I										**0**
	MH II										**0**
	MH III	1									**1**
	MH III/LH I										**0**
	LH I										**0**
	SGE										**0**
	MH										**0**
	Post SGE										**0**
	TOTAL	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**

Table xxiii: age composition of B1 arm position through time

B1 (N=1)		Sub-adult	Juvenile	Male	Female	TOTAL
	MH I					**0**
	MH II					**0**
	MH III	1				**1**
	MH III/LH I					**0**
	LH I					**0**
	SGE					**0**
	MH					**0**
	Post SGE					**0**
	TOTAL	**1**	**0**	**0**	**0**	**1**

Table xxiv: age and gender composition of B1 arm position through time

[221] plus 1 skeleton B1 or B3: MH III, neonate

B2 (N=12)		Neonate	Infant	Child	Juvenile	YA	PA	MA	OA	Adult	TOTAL
	MH I										**0**
	MH II										**0**
	MH III	1	3					2			**6**
	MH III/LH I	1									**1**
	LH I	1	1								**2**
	SGE	2									**2**
	MH						1				**1**
	Post SGE										**0**
	TOTAL	**5**	**4**	**0**	**0**	**0**	**1**	**2**	**0**	**0**	**12**

Table xxv: age composition of B2 arm position through time

B2 (N=12)		Sub-adult	Juvenile	Male	Female	TOTAL
	MH I					**0**
	MH II					**0**
	MH III	4		2		**6**
	MH III/LH I	1				**1**
	LH I	2				**2**
	SGE	2				**2**
	MH	0			1	**1**
	Post SGE	0				**0**
	TOTAL	**9**	**0**	**2**	**1**	**12**

Table xxvi: age and gender composition of B2 arm position through time

B3 (N=5)		Neonate	Infant	Child	Juvenile	YA	PA	MA	OA	Adult	TOTAL
	MH I										**0**
	MH II										**0**
	MH III	1	1	1	1						**4**
	MH III/LH I										**0**
	LH I										**0**
	SGE						1				**1**
	MH										**0**
	Post SGE										**0**
	TOTAL	**1**	**1**	**1**	**1**	**0**	**1**	**0**	**0**	**0**	**5**

Table xxvii: age composition of B3 arm position through time

B3 (N=5)		Sub-adult	Juvenile	Male	Female	TOTAL
	MH I					**0**
	MH II					**0**
	MH III	3	1			**4**
	MH III/LH I					**0**
	LH I					**0**
	SGE				1	**1**
	MH					**0**
	Post SGE					**0**
	TOTAL	**3**	**1**	**0**	**1**	**5**

Table xxviii: age and gender composition of B3 arm position through time

B4 (N=1)		Neonate	Infant	Child	Juvenile	YA	PA	MA	OA	Adult	TOTAL
	MH I										**0**
	MH II										**0**
	MH III										**0**
	MH III/LH I										**0**
	LH I										**0**
	SGE						1				**1**
	MH										**0**
	Post SGE										**0**
	TOTAL	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**

Table xxix: age composition of B4 arm position through time

B4 (N=1)		Sub-adult	Juvenile	Male	Female	TOTAL
	MH I					**0**
	MH II					**0**
	MH III					**0**
	MH III/LH I					**0**
	LH I					**0**
	SGE			1		**1**
	MH					**0**
	Post SGE					**0**
	TOTAL	**0**	**0**	**1**	**0**	**1**

Table xxx: age and gender composition of B4 arm position through time

B5 (N=13)		Neonate	Infant	Child	Juvenile	YA	PA	MA	OA	Adult	TOTAL
	MH I						1				**1**
	MH II		1			1	2	1			**5**
	MH III			1			1	1			**3**
	MH III/LH I	1	1								**2**
	LH I										**0**
	SGE							1			**1**
	MH										**0**
	Post SGE								1		**1**
	TOTAL	**1**	**2**	**1**	**0**	**1**	**4**	**3**	**1**	**0**	**13**

Table xxxi: age composition of B5 arm position through time

B5 (N=13)		Sub-adult	Juvenile	Male	Female	TOTAL
	MH I			1		**1**
	MH II	1		3	1	**5**
	MH III	1		2		**3**
	MH III/LH I	2				**2**
	LH I					**0**
	SGE			1		**1**
	MH					**0**
	Post SGE			1		**1**
	TOTAL	**4**	**0**	**8**	**1**	**13**

Table xxxii: age and gender composition of B5 arm position through time

B6 (N=8)		Neonate	Infant	Child	Juvenile	YA	PA	MA	OA	Adult	TOTAL
	MH I							1			**1**
	MH II		1				1				**2**
	MH III						3				**3**
	MH III/LH I							1			**1**
	LH I										
	SGE						1				**1**
	MH										**0**
	Post SGE										**0**
	TOTAL	**0**	**1**	**0**	**0**	**0**	**5**	**2**	**0**	**0**	**8**

Table xxxiii: age composition of B6 arm position through time

B6 (N=8)		Sub-adult	Juvenile	Male	Female	TOTAL
	MH I			1		**1**
	MH II	1		1		**2**
	MH III			1	2	**3**
	MH III/LH I			1		**1**
	LH I					**0**
	SGE			1		**1**
	MH					**0**
	Post SGE					**0**
	TOTAL	**1**	**0**	**5**	**2**	**8**

Table xxxiv: age and gender composition of B6 arm position through time

B7 (N=2)		Neonate	Infant	Child	Juvenile	YA	PA	MA	OA	Adult	TOTAL
	MH I										**0**
	MH II								1		**1**
	MH III										**0**
	MH III/LH I			1							**1**
	LH I										**0**
	SGE										**0**
	MH										**0**
	Post SGE										**0**
	TOTAL	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**2**

Table xxxv: age composition of B7 arm position through time

B7 (N=2)		Sub-adult	Juvenile	Male	Female	TOTAL
	MH I					**0**
	MH II			1		**1**
	MH III					**0**
	MH III/LH I	1				**1**
	LH I					**0**
	SGE					**0**
	MH					**0**
	Post SGE					**0**
	TOTAL	**1**	**0**	**1**	**0**	**2**

Table xxxvi: age and gender composition of B7 arm position through time

APPENDIX III

LERNA: BODY ORIENTATION

N-S	Neonate	Infant	Child	Juvenile	YA	PA	MA	OA	Adult	TOTAL
EH/MH	0	0	0	0	0	0	0	0	0	**0**
MH I	0	1	0	0	0	1	0	0	0	**2**
MH II	1	1	2	0	0	0	0	0	0	**4**
MH III	5	1	3	0	0	2	2	0	1	**14**
MH III/ LH I	2	1	1	0	0	0	3	0	0	**7**
LH I	4	3	0	0	0	0	2	0	0	**9**
SGE	1	0	0	0	0	0	0	0	0	**1**
MH	0	0	0	0	0	0	0	0	0	**0**
Post SGE	0	0	0	0	0	0	0	1	0	**1**
TOTAL	**13**	**7**	**6**	**0**	**0**	**3**	**7**	**1**	**1**	**38**

Table i: age composition of N-S orientation through time

NE-SW	Neonate	Infant	Child	Juvenile	YA	PA	MA	OA	Adult	TOTAL
EH/MH	0	0	0	0	0	0	0	0	0	**0**
MH I	1	0	0	0	0	0	0	0	0	**0**
MH II	0	0	0	0	0	0	1	1	0	**2**
MH III	3	1	0	0	0	0	0	0	0	**4**
MH III/ LH I	1	0	0	0	0	1	0	0	1	**3**
LH I	0	0	0	0	0	0	0	0	0	**0**
SGE	0	0	0	0	0	0	0	0	0	**0**
MH	0	1	0	1	0	0	0	0	0	**2**
Post SGE	1	0	0	0	0	0	0	0	0	**1**
TOTAL	**6**	**2**	**0**	**1**	**0**	**1**	**1**	**1**	**1**	**13**

Table ii: age composition of NE-SW orientation through time

NW-SE	Neonate	Infant	Child	Juvenile	YA	PA	MA	OA	Adult	TOTAL
EH/MH	0	0	0	0	0	0	0	0	0	**0**
MH I	1	0	0	0	0	0	0	0	0	**1**
MH II	0	0	0	1-M	1	1	0	0	0	**3**
MH III	0	1	0	0	0	0	0	0	0	**1**
MH III/ LH I	2	0	0	0	0	0	0	0	0	**2**
LH I	0	0	0	0	0	0	0	0	0	**0**
SGE	0	0	0	0	0	0	0	0	0	**0**
MH	0	0	0	0	0	0	0	0	0	**0**
Post SGE	0	0	0	0	0	0	0	0	0	**0**
TOTAL	**3**	**1**	**0**	**1**	**1**	**1**	**0**	**0**	**0**	**7**

Table iii: age composition of NW-SE orientation through time

E-W	Neonate	Infant	Child	Juvenile	YA	PA	MA	OA	Adult	TOTAL
EH/MH	0	0	0	0	0	0	0	0	0	**0**
MH I	0	1	0	0	1	0	1	0	0	**3**
MH II	0	2	1	1	0	0	1	0	0	**5**
MH III	2	0	0	0	3	3	1	0	0	**9**
MH III/ LH I	1	3	0	1	0	0	0	0	1	**6**
LH I	3	1	0	0	0	0	0	0	1	**5**
SGE	1	1	1	1	0	2	0	0	0	**6**
MH	0	0	0	0	0	1	0	0	0	**1**
Post SGE	0	0	0	0	0	0	0	0	0	**0**
TOTAL	**7**	**8**	**2**	**3**	**4**	**6**	**3**	**0**	**2**	**35**

Table iv: age composition of E-W orientation through time

SE-NW	Neonate	Infant	Child	Juvenile	YA	PA	MA	OA	Adult	TOTAL
EH/MH	0	0	0	0	0	0	0	0	0	**0**
MH I	0	0	0	0	0	0	0	0	0	**0**
MH II	1	1	0	0	0	1	0	1	1	**5**
MH III	0	0	0	0	0	1	0	0	0	**1**
MH III/ LH I	0	0	0	0	0	0	0	0	0	**0**
LH I	0	0	0	0	0	0	0	0	1	**1**
SGE	0	0	0	0	0	0	0	0	0	**0**
MH	0	0	0	0	0	0	0	0	0	**0**
Post SGE	0	0	0	0	0	0	0	0	0	**0**
TOTAL	**1**	**1**	**0**	**0**	**0**	**2**	**0**	**1**	**2**	**7**

Table v: age composition of SE-NW orientation through time

W-E	Neonate	Infant	Child	Juvenile	YA	PA	MA	OA	Adult	TOTAL
EH/MH	0	0	0	0	0	0	0	0	0	**0**
MH I	1	1	0	0	0	2	0	0	1	**5**
MH II	2	1	0	1-F	2	6	2	0	0	**14**
MH III	2	2	0	0	1	1	0	0	0	**6**
MH III/ LH I	1	0	0	0	0	0	0	0	0	**0**
LH I	3	1	0	0	0	0	0	0	0	**4**
SGE	1	1	0	0	0	0	1	0	0	**3**
MH	0	0	0	0	0	0	0	0	0	**0**
Post SGE	0	0	0	0	0	0	0	1	0	**1**
TOTAL	**10**	**6**	**0**	**1**	**3**	**9**	**3**	**1**	**2**	**35**

Table vi: age composition of W-E orientation through time

SW-NE	Neonate	Infant	Child	Juvenile	YA	PA	MA	OA	Adult	TOTAL
EH/MH	1	0	0	0	0	0	0	0	0	**1**
MH I	0	0	0	0	0	0	0	1	0	**1**
MH II	1	1	0	0	2	1	0	0	1	**6**
MH III	0	0	0	1	0	0	0	0	0	**1**
MH III/ LH I	0	0	0	0	0	0	0	0	0	**0**
LH I	0	0	0	0	0	0	0	0	0	**0**
SGE	2	0	0	0	0	1	0	0	0	**3**
MH	0	0	0	0	2	1	0	0	0	**3**
Post SGE	0	0	0	0	0	0	0	0	0	**0**
TOTAL	**4**	**1**	**0**	**1**	**4**	**3**	**0**	**1**	**1**	**15**

Table vii: age composition of SW-NE orientation through time

S-N	Neonate	Infant	Child	Juvenile	YA	PA	MA	OA	Adult	TOTAL
EH/MH	0	0	0	0	0	0	0	0	0	**0**
MH I	3	0	0	0	0	1	3	0	0	**7**
MH II	1	5	0	1-F	0	2	0	1	0	**10**
MH III	3	1	0	0	0	6	0	0	0	**10**
MH III/ LH I	3	1	1	0	0	1	0	0	0	**6**
LH I	3	1	0	0	0	0	0	0	1	**5**
SGE	0	0	0	0	0	3	0	0	0	**3**
MH	0	0	0	1	0	0	0	0	0	**1**
Post SGE	0	0	0	0	0	0	0	0	0	**0**
TOTAL	**13**	**8**	**1**	**2**	**0**	**13**	**3**	**1**	**1**	**42**

Table viii: age composition of S-N orientation through time

APPENDIX IV

LERNA: composition of the grave finds assemblage

		TOOLS				ORNAMENTS			TOOL/ORN.		WEAPONS			MISC.	ORGANIC			POTTERY			
Grave	**Date**	**Ch.**	**Gr.**	**Bone**	**Terr.**	**Beads**	**Ring**	**Other**	**Pin**	**Whorl**	**Arrow.**	**Knife**	**Other**	**Misc.**	**Bones**	**Shells**	**Grain**	**Cup**	**Jug**	**Jar**	**Other**
A1	III	+		+																	
A2,3,4	II														+						+
A5	III	+													+						
A7	III	+																			
A9	III	+												+							
A10	III													+							+
A11	II	+																			
AH3	I	+																			
B1	LHI									+											
B2	SGE		+															++			
B9	SGE				+																
B12	II				+										+					+	+
B14	I	++	+																		
B16	III													+							
B19	III		+																		
B20A-B	II	+																			
B21A	II									+					+				+		
B25,BE18	SGE								+												
BA1	II													+	+					+	
BA3	II					+	+														
BB2	I															+					
BC1	III/LHI	+													+			+	+		
BC2	III/LHI																		+		
BC3	LHI	+							++					+		+		+	+++		
BC4	III/LHI	+									+				+			+	+		
BC6	I	+																			
BC7	I														+						
BD1	III/LHI																	+			

		TOOLS				ORNAMENTS			TOOL/ORN.		WEAPONS			MISC.	ORGANIC			POTTERY			
Grave	**Date**	**Ch.**	**Gr.**	**Bone**	**Terr.**	**Beads**	**Ring**	**Other**	**Pin**	**Whorl**	**Arrow.**	**Knife**	**Other**	**Misc.**	**Bones**	**Shells**	**Grain**	**Cup**	**Jug**	**Jar**	**Other**
BD4	SGE																	+			+
BD5	III/LHI									+											
BD6	III																		++		
BD9	II										+										
BD14	I			+																	+
BD19	III/LHI	+																++			+
BD21	III																	+			
BD27	I																	+			
BE3	I																	+			
BE6	III/LHI									+							+				+
BE7	LHI														+						
BE9	III	+																			
BE10	III					+															
BE12	III																			+	
BE13	LHI	+																			
BE14	LHI	+																			
BE15	LHI					+															
BE17	SGE								+												
BE19	III				+	+	++			+				+							
BE20	III																			+	+
BE24	II									+											
BE25	III																	+			+
BE29	II																				+
BE30	II			+	+				+	+				++				++		+	+
BE31	II	+							+												
C-F	II	+								+								+			+
D1	II	+													+						
D5	III/LHI																	++	+		
D8	III/LHI					+															
D9	III	+												+							
D14	III	+		+		+										+					
D15	III									+											
D17	II	+					++												+		+

		TOOLS				ORNAMENTS			TOOL/ORN.		WEAPONS			MISC.	ORGANIC			POTTERY			
Grave	**Date**	**Ch.**	**Gr.**	**Bone**	**Terr.**	**Beads**	**Ring**	**Other**	**Pin**	**Whorl**	**Arrow.**	**Knife**	**Other**	**Misc.**	**Bones**	**Shells**	**Grain**	**Cup**	**Jug**	**Jar**	**Other**
D19	II			+			+														
D20	III																+				
DB1	LHI														+	+					
DC1	LHI	+							+						+						
DC2	LHI	+				+									+			++	+	++	+
DC3	LHI					+								+							
DC4	LHI	+				+															++
DE6	SGE	+							+		+										
DE10	LHI					+	+									+					
DE13	LHI														+						
DE15	III/LHI								+												
DE21	LHI				+	+		+								+	+		+	+	
DE22	SGE									+											+
DE27	III	+					+		++							+	+				
DE28	II	++													+						+
DE29	III	++								+					+						
DE30	III	+													+	+					+
DE33	I																+		+		
DE36	II	+													+						
DE39	LHI																	+			
DE40	III	++											+								
DE42	III					+	++														
DE45	III	+																			
DE51	III															+					
DE53	III									+											
DE58	III																				+
DE59	III	+												+							
DE60	III	+			+				+						+						
DE64	I													+							
DE68	I																			+	
DE69	II																	+			
DE71-72	I			+																	
G2	I	+													+						

		TOOLS				ORNAMENTS			TOOL/ORN.		WEAPONS			MISC.	ORGANIC			POTTERY			
Grave	**Date**	**Ch.**	**Gr.**	**Bone**	**Terr.**	**Beads**	**Ring**	**Other**	**Pin**	**Whorl**	**Arrow.**	**Knife**	**Other**	**Misc.**	**Bones**	**Shells**	**Grain**	**Cup**	**Jug**	**Jar**	**Other**
G3	II						+														
H1	II	+				+			+					+++		+			+		
J1	MH														+						
J2	MH					+								+	+			++			
J4A	SGE																				+
J4B	II											+				+		++	+	+	
J5	II																	+			

APPENDIX V

LERNA: non-pottery finds correlations

CHIPPED TOOLS			TOOLS				ORNAMENTS			TOOL-ORN.		WEAPONS		MISC.	ORGANIC		
Cat.No.	Grave	Date	Chipped	Ground	Bone	Terr.	Bead	Ring	Other	Pin	Whorl	Arrowh.	Other	Misc.	Bones	Shell	Grain
-	A1	III			+												
L3.166	A9	III												+			
L4.693 & -	B14	I	+	+													
L5.460	BC4	III/LHI										+			+		
L6.1283	BE31	II								+							
L2.6	C-F	II									+						
-	DC1	LHI								+							
-	DE27	III	+					+		++						+	+
-	DE28	II	+														
L6.1546 & -	DE29	III	++								+				+		
L6.1220	DE36	II													+		
-	DE40	III	+										+				
L6.1224	DE59	III												+			
L6.1149	DE6	III/LHI-LHI								+		+					
L6.1223	DE60	III				+				+					+		
-	G2	I						+							+		
-	H1	II	+				+			+				+		+	

Table i: Chipped stone correlations

BONE AWLS			TOOLS				ORNAMENTS			TOOL-ORN.		WEAPONS		MISC.	ORGANIC		
Cat.No.	**Grave**	**Date**	**Chipped**	**Ground**	**Bone**	**Terr.**	**Bead**	**Ring**	**Other**	**Pin**	**Whorl**	**Arrowh.**	**Other**	**Misc.**	**Bones**	**Shell**	**Grain**
L3.178	A1	III	+														
L6.360	BE30	II				+				+	+			++			
-	D14	III	+				+										
L4.241	D19	II						+									

Table ii: Bone awl correlations

TERRACOTTA TOOLS			TOOLS				ORNAMENTS			TOOL-ORN.		WEAPONS		MISC.	ORGANIC		
Cat.No.	**Grave**	**Date**	**Chipped**	**Ground**	**Bone**	**Terr.**	**Bead**	**Ring**	**Other**	**Pin**	**Whorl**	**Arrowh.**	**Other**	**Misc.**	**Bones**	**Shell**	**Grain**
-	B12	II													+		
L6.1492	BE19	III					++	++			+			+			
L6.124	BE30	II			+					+	+			++			
L6.425	DE21	LHI					++		+							++	+
L6.10	DE60	III	+							+					+		

Table iii: terracotta tool correlations

BEADS			TOOLS				ORNAMENTS			TOOL-ORN.		WEAPONS		MISC.	ORGANIC		
Cat.No.	**Grave**	**Date**	**Chipped**	**Ground**	**Bone**	**Terr.**	**Bead**	**Ring**	**Other**	**Pin**	**Whorl**	**Arrowh.**	**Other**	**Misc.**	**Bones**	**Shell**	**Grain**
L4.71, L4.122-4	BA3	II						+									
L6.426-436	BE19					+		++			+			+			
L4.121, L4.629, uninv.	D14	III	+		+											+	
L6.329	DC2	LHI	+												+		
L6.640	DC3	LHI												+			
L6.191-207, L6.328	DC4	LHI	+														
L6.395-401	DE10	LHI						+								+	
L3.114-117, uninv.	H1	II	++							+				+++		++	
L5.899-904	J2	MH												+	+		

Table iv: bead correlations

RINGS			TOOLS				ORNAMENTS			TOOL-ORN.		WEAPONS		MISC.	ORGANIC		
Cat.No.	**Grave**	**Date**	**Chipped**	**Ground**	**Bone**	**Terr.**	**Bead**	**Ring**	**Other**	**Pin**	**Whorl**	**Arrowh.**	**Other**	**Misc.**	**Bones**	**Shell**	**Grain**
L4.535	BA3	II					+++										
L6.437-8	BE19	III				+	+++				+			+			
L4.539-540	D17	II	+														
L4.219	D19	II			+												
L6.287-8	DE42	III					+++										

Table v: ring correlations

PINS			TOOLS				ORNAMENTS			TOOL-ORN.		WEAPONS		MISC.	ORGANIC		
Cat.No.	**Grave**	**Date**	**Chipped**	**Ground**	**Bone**	**Terr.**	**Bead**	**Ring**	**Other**	**Pin**	**Whorl**	**Arrowh.**	**Other**	**Misc.**	**Bones**	**Shell**	**Grain**
L5.830-L5.837	BC3	LHI	+											++			
L6.357	BE30	II			+	+					+			++			
L6.354	B31	II	+														
-	DC1	LHI	+												+		
L6.526-L6.480	DE27	III	++					+								+	+
L6.706	DE60	III	++			+									+		

Table vi: pin correlations

WHORLS			TOOLS				ORNAMENTS			TOOL-ORN.		WEAPONS		MISC.	ORGANIC		
Cat.No.	**Grave**	**Date**	**Chipped**	**Ground**	**Bone**	**Terr.**	**Bead**	**Ring**	**Other**	**Pin**	**Whorl**	**Arrowh.**	**Other**	**Misc.**	**Bones**	**Shell**	**Grain**
-	B21A-B	II													+		
L6.112	BE19	III				+	+++	++						+			
L6.104	BE30	II			+	+				+				++			
L2.2	C-F	II	+														
L6.71	DE29	III	+++												+		

Table vii: whorl correlations

WEAPONS			TOOLS				ORNAMENTS			TOOL-ORN.		WEAPONS		MISC.	ORGANIC		
Cat.No.	**Grave**	**Date**	**Chipped**	**Ground**	**Bone**	**Terr.**	**Bead**	**Ring**	**Other**	**Pin**	**Whorl**	**Arrowh.**	**Other**	**Misc.**	**Bones**	**Shell**	**Grain**
L5.459	BC4	III/LHI	+												+		
L6.252	DE40	III	++														
L6.1150	DE6	III/LHI-LHI	+							+							
L6.314	J4B	II														++	

Table viii: weapon correlations

APPENDIX VI

LIST OF GRAVES

LERNA

Grave No **A1**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	cist 1	1Ler 2Ler	male male	YA PA	no	L3.178: bone awl/ uninetoried: obsidian blade	Hesperia[222], 23(1954), pp.14,19, pl.3b/ ETB[223], pp.124-5, pls.5-f,6a

Grave No **A2,3,4**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	stray bones	3Ler	female	PA	L100: crater	animal bones	Hesperia, 23(1954), p.14/ ETB., p.111

Grave No **A5**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	cist	4Ler	---	child	no	uninventoried: odsidian chip/ animal bones	Hesperia, 23(1954), p.14/ ETB., p.126

Grave No **A6**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	pit	5Ler	---	neonate	no	no	Hesperia, 23(1954), p.16/ ETB., p.111-2

Grave No **A7**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	pit	6Ler	---	neonate	no	uninventoried:	Hesperia, 23(1954),
		6aLer	---	neonate		odsidian	p.14, pl.3a,3c/ ETB.,p.125, pl.6-b

Grave No **A8**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	pit	7Ler	female	OA	no	no	ETB., p. 83

[222] Hesperia: Caskey in Hesperia
[223] ETB: Blackburn, E.T., 1970

Grave No **A9**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	cist	8Ler	---	infant	no	L4.779: bone or ivory lid/ L3.166: obsidian blade	Hesperia, 23(1954), p.14/ ETB., p.123-4, pl.5-f

Grave No **A10**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	cist	9Ler		infant	L91: bowl	uninventoried: turtle shell?	Hesperia, 23(1954), p.14, pl.8d/ ETB., p.155, pl.5-f

Grave No **A11**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	pit	10Ler		neonate	no	uninventoried: obsidian blade	ETB., p.125

Grave No **A12**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	jar	11Ler		infant	no	no	ETB., p.68/ Zerner, 1990, p.24, fig.2

Grave No **AH3**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHI	cist	----	---	adult	no	uninventoried: obsidian blade	ETB., p.40

Grave No **B**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	stray bones	72Ler	male	MA	no	no	ETB., p.119

Grave No **B1**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
LHI	pit	----	---	adult?	no	L3.225: terracotta	ETB., p.103

Grave No **B2**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
SGE	cist	12Ler	female	adult	L430(?): cup/ L243(?): cup	LS.22: millstone	ETB., p. 103-4

Grave No **B3**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
SGE	cist	13Ler	female	PA	no	no	ETB., p.102-3, pl.5-b

Grave No **B3A**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	pit	14Ler	female	adult	no	no	ETB., p.102

Grave No **B4**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
EH/MH	pit	15Ler	---	foetus	no	no	ETB., p.38

Grave No **B5**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	pit	----	---	---	no	no	ETB., p.118

Grave No **B6**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	pit	----	---	---	no	no	ETB., p.118-9

Grave No **B7**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
LHI	pit	39 Ler	female	adult	no	no	ETB., p.118

Grave No **B8**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
SGE	pit	----	---	---	no	no	ETB., p.64-5

Grave No **B9**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
SGE	cist	40 Ler	male	PA	no	L4.176: terracotta polisher	Hesperia, 24(1955), p.35, pl.14d/ ETB., p. 64, pl.2-e

Grave No **B11**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHI	cist	----	---	---	no	no	ETB., p.39

Grave No **B12**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	pit	42 Ler 43Ler	female male	PA YA	L270: jar/ L339: pithos sherd with lead clamp	uninventoried: terracotta disc/ animal bones	Hesperia, 24(1955), p.35, pls. 14e, 17e/ ETB., p.62, pl.2-b

Grave No **B13**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	pit	44Ler	male	PA	no	no	Hesperia, 24(1955), p.35/ ETB., p.63, pl.2-d

Grave No **B14**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHI	pit	56Ler	female	OA	no	L4.560: stone hammer/ L4.693: flint saw/ uninventoried: obsidian core	ETB., p.37

Grave No **B15**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	pit	57Ler	---	infant	no	no	ETB., p.37

Grave No **B16**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	cist	61Ler	female	YA	no	uninventoried: iron	Hesperia, 25 (1956), p.158/ ETB., p. 154

Grave No **B17**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	cist	62Ler	female	PA	no	no	ETB., p.153, pl.7-b

Grave No **B18**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	cist	63Ler	---	infant	no	no	ETB., p. 123

Grave No **B19**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	pit	64Ler	---	foetus/ neonate	no	uninventoried: stone implement	ETB., p. 122

Grave No **B20A-B**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	cist	66Ler 65Ler	male female	MA MA	no	L5.580(?): obsidian flake	ETB., pp.83-4, 69

Grave No **B21A**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	cist	67Ler	female	PA	L578: jug	uninvetoried: terracotta whorl/ animal bones	ETB., pp.84

Grave No **B21B**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	stray bones	----	---	infant?	no	no	ETB., p.85

Grave No **B23**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	cist	68Ler	male	adult	no	no	ETB., p.120

Grave No **B24**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	cist	69Ler	male	OA	no	no	ETB., p.153-4, pl.7-b

Grave No **B25, BE18**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
SGE	cist	70 Ler 122Ler 123Ler 124Ler	male male --- male	PA juvenile child PA	no	uninventoried: bone pin	ETB., p.69, pl.3-a,b

Grave No **B28**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	jar	71Ler		foetus/ neonate	no	no	ETB., p.63/ Zerner, 1990, p.24, fig.4

Grave No **BA1**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	pit	33Ler	male	YA	L392: jar	L4.644: bronze chisel/ animal bones	ETB., p.100

Grave No **BA2**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	pit	34Ler	---	neonate	no	no	ETB., pp.79-80

Grave No **BA3**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	cist	35Ler		infant	no	L4.535: bronze ring/ L4.71: terracotta bead in the shape of pithos/ L4.122-4:3 beads	Hesperia, 24(1955), pp.35-6/ ETB., p.101

Grave No **BA4**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII/LHI	cist	73Ler	male	adult	no	no	ETB., p.98

Grave No **BB1**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	pit	37Ler	male	YA	no	no	ETB., p.102

Grave No **BB2**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHI	pit	38Ler	male	MA	no	animal bones	ETB., p.46

Grave No **BC1**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII/LHI	cist	74Ler	---	juvenile	L792: miniature jug/ L793: cup	uninventoried: obsidian chips/ animal bones	ETB., p.97

Grave No **BC2**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII/LHI	cist	75Ler		child	L791: miniature jug	no	ETB., p.96

Grave No **BC3**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
LHI	cist	---	---	adult ?	L600: Vapheio cup/ L595: jug/ L596: jug/ L601: jug	L5.830: bronze bodkin/ L5.837: bronze pin/ L5.853-4: 2 lead mending clamps/ uninventoried: obsidian/ uninventoried: snail shells	Hesperia, 25(1956), pp.157-8, pls.40a-d/ 26(1957), p.418/ 27(1958), p.128, fig.1, p.140, pl.39d/ ETB., p.145-7

Grave No **BC4**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII/LHI	cist	76Ler	male	PA	L816: miniature cup/ L599: jug	L5.460: obsidian blade/ L5.459: obsidian arrowhead/ animal bones	ETB., p.60, pl.2-b

Grave No **BC5**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHI	pit	77Ler	female	PA	no	no	ETB., p.34

Grave No **BC6**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHI	cist	78Ler	---	infant	no	L5.467: flint flake	ETB., p.46, pl.4-e,f

Grave No **BC7**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHI	pit	79Ler	---	foetus/ neonate	no	animal bones	ETB., p.38

Grave No **BD1**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII/LHI	cist	80Ler	---	infant	L920: cup	no	ETB., pp.97-8

Grave No		BD2					
Date	**Grave**	**Skel.**	**Sex**	**Age**	**Pott_Off**	**Other_off**	**References**
SGE	semi-cist	81Ler	---	infant	no	no	ETB., pp.106-7

Grave No		BD3					
Date	**Grave**	**Skel.**	**Sex**	**Age**	**Pott_Off**	**Other_off**	**References**
post SGE	pit	83 Ler	male	PA	no	no	ETB., pp.107-8
		82Ler	male	MA			

Grave No		BD4					
Date	**Grave**	**Skel.**	**Sex**	**Age**	**Pott_Off**	**Other_off**	**References**
SGE	pit	84Ler	---	neonate	L1132: flask	no	ETB., pp.99-100

Grave No		BD5					
Date	**Grave**	**Skel.**	**Sex**	**Age**	**Pott_Off**	**Other_off**	**References**
MHIII/LHI	cist	85Ler	male	adult	no	L6.64: terracotta whorl	ETB., p.106

Grave No		BD6					
Date	**Grave**	**Skel.**	**Sex**	**Age**	**Pott_Off**	**Other_off**	**References**
MHIII	semi-cist	86Ler	---	neonate	L981: cup/ L929: cup	no	ETB., p.105

Grave No		BD8					
Date	**Grave**	**Skel.**	**Sex**	**Age**	**Pott_Off**	**Other_off**	**References**
MH	stray bones	----	---	adult?	no	no	ETB., p.117-118

Grave No		BD9					
Date	**Grave**	**Skel.**	**Sex**	**Age**	**Pott_Off**	**Other_off**	**References**
MHII	pit	87Ler	male	PA	no	L6.1423: obsidian arrowhead	ETB., p.107

Grave No		BD11					
Date	**Grave**	**Skel.**	**Sex**	**Age**	**Pott_Off**	**Other_off**	**References**
SGE	pit	88Ler	male	PA	no	no	ETB., p.105

Grave No		BD12					
Date	**Grave**	**Skel.**	**Sex**	**Age**	**Pott_Off**	**Other_off**	**References**
SGE	cist	89Ler	male	MA	no	no	ETB., p.109, pl.5-c

Grave No		BD13					
Date	**Grave**	**Skel.**	**Sex**	**Age**	**Pott_Off**	**Other_off**	**References**
SGE	pit	90Ler		foetus/ neonate	no	no	ETB., p.79

Grave No **BD14**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHI	pit	91 Ler	male	MA	L1266: handle with potter's mark	L6.614: bone awl	ETB., p.47, pl.1-c

Grave No **BD15**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII/LHI	cist	92Ler	female	PA	no	no	ETB., p.99, pl.5-a

Grave No **BD16**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	cist	93Ler	---	child	no	no	ETB., p.61, pl.2-c

Grave No **BD18**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHI	stray bones	94Ler	---	neonate	no	no	ETB., pp.61-2

Grave No **BD19**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII/LHI	cist	95Ler	male	PA	L933: jug L989: strainer jug/ L1300: handle with potter's mark	L6.1469: obsidian blade	Hesperia, 26 (1957), p.152, pl.41d/ ETB., pp.78-9

Grave No **BD20**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHI	pit	96Ler	---	foetus/ neonate	no	no	ETB., p.47

Grave No **BD21**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	cist	97Ler	female	PA	L1206: cup	no	ETB., pp.77-78

Grave No **BD22-BD25**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHI	stray bones	98 Ler	---	child	no	no	ETB., p.36

Grave No **BD23**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	cist	99Ler	---	infant	no	no	ETB., p.34

Grave No **BD24**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHI	jar	100Ler	---	neonate	no	no	ETB., p.36/ Zerner, p.24, fig.3

Grave No **BD26**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHI	pit	102Ler	---	neonate	no	no	ETB., p.37

Grave No **BD27**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHI	pit	103Ler	---	infant	L978: cup	no	ETB., p.35

Grave No **BD28**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
EH/MH	pit	104Ler	---	neonate	no	no	ETB., p.117

Grave No **BE**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHI	stray	243Ler	female	young	no	no	ETB., p.42
	bones	244Ler	female	young			
		245Ler	---	juvenile			
		246Ler	---	juvenile			
		247Ler	---	infant			
		248Ler	---	foetus/neonate			
		249Ler	female	young			

Grave No **BE2**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
LHI	cist	106Ler	male	adult	no	no	ETB., p.147

Grave No **BE3**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
LHI	cist	107Ler	---	neonate	L1058: cup	no	ETB., pp.148-9

Grave No **BE4**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
LHI	cist	108Ler	---	neonate	no	no	ETB., pp.147-8

Grave No **BE5**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII/LHI	cist	109Ler	---	infant	no	no	ETB., p.149

Grave No **BE6**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII/LHI	cist	110Ler	---	infant	L1159: bowl/ L1160: cup	L6.101: terracotta	ETB., pp.150-1

Grave No **BE7**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
LHI	pit	111Ler		foetus/ neonate	no	animal bones	ETB., p.150

Grave No **BE8**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
LHI	cist	112Ler	---	neonate	no	no	ETB., p.148, pl.6-f

Grave No **BE9**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	pit	113Ler	---	neonate	no	L6.1506: obsidian blade	ETB., pp.120-1
		113aLer	---	neonate			

Grave No **BE10**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	pit	114Ler	---	neonate	no	L6.181-4: 4 paste beads	ETB., p.151

Grave No **BE11**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	cist	115Ler	male	MA	no	no	ETB., p.152

Grave No **BE12**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	cist	116Ler	---	foetus/ neonate	L1072: jar	no	ETB., p.121/ Zerner, 1990, p.24, fig.12

Grave No **BE13**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
LHI	cist	117Ler	---	neonate	no	L6.1343: obsidian blade	ETB., p.149, pl.7-a

Grave No **BE14**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
LHI	cist	118Ler	---	neonate	no	L6.1343: obsidian blade	ETB., p.149, pl.7-a

Grave No **BE15**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
LHI	semi-cist	119Ler	---	foetus/ neonate	no	uninventoried: bead	ETB., pp.110-1

Grave No **BE16**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII/LHI	semi-cist	120Ler	---	neonate	no	no	ETB., p.122

Grave No **BE17**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
SGE	cist	121Ler	---	neonate	no	L6.311: bronze pin	ETB., pp.85-6

Grave No **BE19**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	cist	125Ler 125aLer 126Ler	male --- female	PA neonate YA	no	L6.112: terracotta whorl/ L6.325: terracotta axe/ L6.1492: terracotta pierced disc/ L6.437-8: 2 silver rings/ L6.432-6: 5 faience beads/ L6.426-9: 4 onyx beads/ L6.430: 2 amethyst	ETB., p.49, pl.1-d

Grave No **BE20**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	cist	127Ler	male	MA	L1667: jar/ L1197: flask (sherd)	no	ETB., p.48

Grave No **BE21**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
SGE	cist	----	---	---	no	no	ETB., p.110

Grave No **BE22**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	cist	128Ler	male	OA	no	no	ETB., p.51

Grave No **BE23**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	pit	129Ler	male	PA	no	no	ETB., pp.50-1

Grave No **BE24**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	pit	130 Ler		infant	no	L6.106: terracotta whorl	ETB., p.52

Grave No **BE25**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	cist	131Ler	male	YA	L979: kantharos/ L1295: rim sherd with potter's mark	no	ETB., pp.109-110

Grave No **BE26**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	cist	132Ler	male	PA	no	no	ETB., pp.47-8

Grave No **BE27**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHI	pit	133Ler	---	infant	no	no	ETB., p.53

Grave No **BE28**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	pit	134Ler	---	foetus/ neonate	no	no	ETB., p.42

Grave No **BE29**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	jar	135Ler	---	neonate	L1029: bowl	no	ETB., pp.52-3/ Zerner, 1990, p.24, fig.8

Grave No **BE30**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	pit	136Ler	---	neonate	L1022: cup/ L1066: pyxis/ L980: cup/ L988: jar	L6.276: pestle?/ L6.275: pestle/ L6.360: bone awl/ L6.104: terracotta whorl/ L6.375: bone pin/ L6.124: terracotta pierced disc	Hesperia, 26(1957), p.149, pl.40
		137Ler	female	YA			
		138Ler	female	juvenile			
		139Ler	female	PA			
		140Ler	male	PA			

Grave No **BE31**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	jar	---	---	---	no	L6.354: bone pin L6.1283: chert saw	ETB., p.52, pl.1-e/ Zerner, 1990, p.24, fig.5

Grave No **BF1**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	pit	236Ler	---	neonate	no	no	ETB., p.108

Grave No **C-F**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	cist	16Ler	female	juvenile	L13: cup/ L48: bowl	L2.2: terracotta whorl/ L2.6: obsidian flake	Hesperia, 23 (1954), pp.18-19, pl.8e/ Archaeology, 6 (1953), p.102, fig.9/ ETB., p.76

Grave No **C-H**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	pit	17Ler	---	child	no	no	Hesperia, 23(1954), pp.18-19/ ETB., p.76

Grave No **C-J**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHI	pit	---	---	---	no	no	Hesperia, 23(1954), p.18-19

Grave No **C-K**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHI	pit	---	---	---	no	no	Hesperia, 23(1954), p.18-19

Grave No **C-L & M**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHI	pit	19Ler	male	PA	no	no	Hesperia, 23(1954), pp.18-19/ ETB., p.76
		18Ler	male	adult			

Grave No **D1**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	pit	20Ler	male	MA	no	L2.252: odsidian flake or blade/ animal bones	Hesperia, 23(1954), pp.10-11/ 25(1956), p.150/ Archeaology, 6(1953), p.101, f.6/ ETB., p.58

Grave No **D3**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII/LHI	cist	22Ler	---	foetus/ neonate	no	no	Hesperia, 23(1954), pp.10-11/ETB., pp.143-4

Grave No **D4**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII/LHI	cist	23Ler	male	MA	no	no	Hesperia, 23(1954), pp.10-11/ 25(1956), p.150/ ETB., p.143

Grave No **D5**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII/LHI	cist	24Ler	---	infant	L78: kantharos/ L79: jug/ L80: kantharos	no	Hesperia, 23(1954), p.11, pl.7a/ 25(1956), p.150/ ETB., pp.166-7

Grave No **D6**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII/LHI	pit	25Ler	---	foetus	no	no	Hesperia, 23(1954), p.10/ ETB., p.10

Grave No **D7**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII/LHI	pit	26Ler	---	neonate	no	no	Hesperia, 23(1954), pp.10-11/ ETB., p.142

Grave No **D8**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII/LHI	semi-cist	27Ler	---	neonate	no	L3.73:egyptian faience bead/ uninventoried: egyptian faience beads	Hesperia, 23(1954), pp.10-11/ ETB., p.142

Grave No **D9**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	cist	28Ler	male	PA	no	uninventoried: glass paste/ uninventoried: obsidian chips	Hesperia, 23(1954), pp.10-11/ 25(1956), p.150/ ETB., pp.141-2

Grave No **D11**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII/LHI	pit	30Ler	---	foetus	no	no	Hesperia, 23(1954), pp.10-11/ETB.,pp.142-3

Grave No **D14**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	semi-cist	55Ler(?)	---	child	no	L4.121, L4.629, uninventoried: 3paste beads/ uninventoried: 48 sea shells/ uninventoried: obsidian chip/ uninventoried: bone awl	Hesperia, 24(1955), p.28/ ETB., pp.93-4

Grave No **D15**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	pit	45Ler	female	PA	no	L4.120: terracotta whorl	ETB., pp.94-5, pl.4-c,d

Grave No **D16**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	pit	46Ler	---	infant	no	no	Hesperia, 24(1955), pl.13b/ ETB., p.55

Grave No **D17**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	jar	47Ler	---	infant	L273: jug/ L455: sherd (base)	L4.539-540: 2 bronze rings/ uninventoried: flint chip	Hesperia, 24(1955), p.28, pl.12b,c/25(1956), p.150/ ETB., p.74/ Zerner, 1990,pp.23-4

Grave No **D18**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	pit	48Ler	male	YA	no	no	Hesperia, 24(1955), p.28/ ETB., pp.56-7, pl.2-a

Grave No **D19**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	pit	49Ler	---	neonate	no	L4.219: bronze ring/ L4.241: bone awl	ETB., pp.57-8

Grave No **D20**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	pit	50Ler	male	MA	no	uninventoried: charred beans	ETB., p.59

Grave No **D21**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	pit	51Ler	---	infant	no	no	ETB., p.57

Grave No **D22**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	pit	52Ler	male	MA	no	no	Hesperia, 24(1955), p.28/ ETB., p.56

Grave No **DB**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
LHI	pit	142Ler	---	neonate	no	no	ETB., p.178

Grave No **DB1**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
LHI	pit	143Ler	---	neonate	no	animal bones	Hesperia, 26(1957), p. 143

Grave No **DB2**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHI	cist	144Ler	male	adult	no	no	Hesperia, 26(1957), p.143/ ETB., p.59

Grave No **DC1**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
LHI	cist	145Ler 146Ler 147Ler	male female female	MA MA adult	L986: jug	uninventoried: obsidian blade/ uninventoried: bronze pin/ animal bone	Hesperia, 26(1957), pp.143-4/ ETB., pp.175-6, pl.7-c

Grave No **DC2**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
LHI	cist	148Ler	---	infant	L922: jar/ L926: goblet/ L923: cup/ L925: jar/ L927: cup/ L921: jug	L6.329: faience bead/ uninventoried: obsidian/ animal bone	Hesperia, 26(1957), pp.144-5, pl.39e-h/ ETB., pp.174-5, pls.7c,d

Grave No **DC3**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
LHI	cist	---	---	child?	no	L6.304: bronze rivet/ L6.640: teeth bead	Hesperia, 26(1957), pp.145/ ETB., pp.176-7

Grave No **DC4**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
LHI	cist	---	---	child?	L924: feeding bottle/ uninventoried: base	L6.191-4: 4 carnelian beads/ L6.195, L6.203: 3 stone beads/ L6.197-202: 7 crystal beads/ L6.204-7: 4 paste beads/ L6.328: bronze bead/ uninventoried: obsidian chips	Hesperia, 26(1957), pp.145, pl.39/ ETB., pp.177-

Grave No **DE2-3**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
LHI	pit	151Ler	---	neonate	no	no	ETB., p.158
		152Ler	---	neonate			

Grave No **DE4**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
post-SGE	pit	153Ler	---	neonate	no	no	ETB., p.165

Grave No **DE5**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII/LHI	pit	154Ler	---	infant	no	uninventoried: animal bones and shell	ETB., p.158

Grave No **DE6**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
SGE	semi-cist	155Ler	---	neonate	no	L6.295a+b: bronze pin/ L6.1150: obsidian arrowhead/ L6.1149: obsidian blade	ETB., pp.156-7

Grave No **DE7**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
LHI	cist	---	---	infant?	no	no	ETB., p.165

Grave No **DE8**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII/LHI	pit	156Ler	---	neonate	no	no	ETB., p.159

Grave No **DE9**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
LHI	pit	157Ler	---	infant	no	no	ETB., pp.155-6

Grave No **DE10**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
LHI	pit	158Ler	---	infant	no	L6.446: bronze ring/ L6.395-401: 7 paste beads/ uninventoried : shell	ETB., p.156

Grave No **DE11**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
LHI	cist	159Ler	---	neonate	no	no	ETB., pp.158-9, pl.6-c

Grave No **DE12**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
LHI	pit	160Ler	---	foetus/ neonate	no	no	ETB., p.160

Grave No **DE13**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
LHI	semi-cist	161Ler	---	foetus/ neonate	no	uninventoried: animal bones	ETB., p.128

Grave No **DE14**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
LHI	pit	162Ler	---	neonate	no	no	ETB., p.160

Grave No **DE15**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII/LHI	pit	163Ler	---	neonate	no	L6.556: bone pin	ETB., pp.127-8, pl.6p-c

Grave No **DE16**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII/LHI	cist	---	---	---	no	no	ETB., p.126-7

Grave No **DE17**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII/LHI	cist	164Ler	male	MA	no	no	ETB., p.159

Grave No **DE18**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	pit	165Ler	---	neonate	no	no	ETB., p.152

Grave No **DE19**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII/LHI	pit	166Ler	---	neonate	no	no	ETB., pp.128-9

Grave No **DE20**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII/LHI	pit	---	---	infant?	no	no	ETB., p.131

Grave No **DE21**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
LHI	cist	167Ler	---	infant	L974: jar/ L987: jug	L6.415-424: bronze-paste beads-wire/ L6.414: bone or shell bead/ L6.404-5: 2 stone beads/ L6.406-413: 8 paste beads/ L6.322: silver ornament-diadem?/	Hesperia, 26(1957), p.148, pl.43d/ ETB., pp.160-4, pl.6-d

						L6.425: terracotta pierced disc/ uninventoried: shells/ uninventoried: charred grains	

Grave No **DE22**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
SGE	cist	168Ler	---	infant	L1111: jar	L6.52: terracotta whorl	ETB., p.132, pl.6-d

Grave No **DE23**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	pit	169Ler	---	neonate	no	no	ETB., p.130

Grave No **DE24**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	cist	170Ler	---	infant	no	no	ETB., p.112-114

Grave No **DE25**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	pit	171Ler	---	neonate	no	no	ETB., p.135

Grave No **DE26**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII/LHI	pit	172Ler	---	foetus/ neonate	no	no	ETB., p.137

Grave No **DE27**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	cist	173Ler	---	infant	no	L6.285: bronze ring/ L6.480: bone pin/ L6.526: bone pin/ uninventoried: obsidian blades/ uninventoried: shells/ uninventoried: charred grain	ETB., pp.131-2

Grave No **DE28**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	pit	174 Ler 174aLer	male ---	YA child	L1306: handle with potter's	uninventoried: obsidian blade/ uninventoried: quarz/ uninventoried:	ETB., pp.86-7, pl.4-a

animal bone

Grave No **DE29**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	pit	175Ler	male	PA	no	L6.71: terracotta whorl/ L6.1546: flint serrated crescent/ uninventoried: obsidian blades/ uninventoried: animal bone	ETB., p.129-130

Grave No **DE30**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	pit	176Ler	---	infant	L1217: bowl,	uninventoried: oyster shell/ uninventoried: quarz/ uninventoried: animal bone	ETB., pp.87-88

Grave No **DE31**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	cist	177Ler	---	infant	no	no	ETB., p.129

Grave No **DE32**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	semi-cist	178Ler	female	PA	no	no	ETB., p.127

Grave No **DE33**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHI	pit	179Ler	---	neonate	L1214: jug	uninventoried: charred wheat	ETB., pp.70-1, pl.3-c

Grave No **DE34**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	pit	180Ler	---	infant	no	no	ETB., p.114

Grave No **DE35**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	pit	181Ler	male	OA	no	uninventoried: animal bones	ETB., pp.71-2

Grave No **DE36**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	cist	182Ler	female	PA	no	L6.1220: obsidian blade/ uninventoried: weasel's skeleton	ETB., pp.88-89

Grave No **DE37**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	pit	101Ler	---	foetus/ neonate	no	no	ETB., p.139

Grave No **DE38**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	pit	183Ler	---	neonate	no	no	ETB., p.134

Grave No **DE39**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
LHI	cist	184Ler	---	infant	L975: miniature Vapheio cup	no	ETB., pp.165-6

Grave No **DE40**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	cist	185Ler	male	MA	no	L6.252: stone slingshot pellet/ uninventoried: obsidian/ uninventoried: blade	ETB., p.136

Grave No **DE41**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	semi-cist	186Ler	---	infant	no	no	ETB., p.122-3

Grave No **DE42**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	pit	187Ler	---	neonate	no	L6.287-8: 2 bronze rings/ L6.439-442: 4 paste beads/ L6.443-5: 3 crystal beads	ETB., p.140

Grave No **DE43**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII/LHI	cist 1	188Ler	---	neonate	no	no	ETB., p.134

Grave No **DE44**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
LHI	semi-cist	---	---	---	no	no	ETB., p.173

Grave No **DE45**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	cist	189Ler	male	PA	no	L6.1217: obsidian bladelet	ETB., pp.139-140, pl.6-e

Grave No **DE46**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII/LHI	cist	190Ler	---	infant	no	no	ETB., pp.135-6

Grave No **DE47**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
SGE	pit	191Ler	---	neonate	no	no	ETB., p.138

Grave No **DE48**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	cist	192Ler	female	PA	no	no	ETB., pp.138-9

Grave No **DE49**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	stray bones	---	---	adult?	no	no	ETB., p.53-54

Grave No **DE50**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHI	jar	193Ler	---	infant	no	uninventoried: animal bone	Hesperia, 26(1957), p.148/ ETB., p.54, pl.1-f/ Zerner, 1990, p.24, fig.1

Grave No **DE51**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	semi-cist	194Ler	---	neonate	no	uninventoried: cowry shell	ETB., p.133

Grave No **DE52**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHI	pit	195Ler	---	neonate	no	no	ETB., p.71, pl.3-d

Grave No **DE53**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	cist	196Ler	female	adult	no	L6.19: terracotta whorl	ETB., p.91

Grave No **DE54**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII/LHI	cist	197Ler	---	neonate	no	no	ETB., p.138

Grave No **DE55**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	pit	198Ler	male	PA	no	no	ETB., pp.92-3

Grave No **DE56**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
LHI	pit	---	---	infant	no	no	ETB., p.137

Grave No **DE57**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	pit	199Ler	---	neonate	no	no	ETB., p.135

Grave No **DE58**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	cist	---	---	---	L1120: lid	no	ETB., p.90

Grave No **DE59**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	cist	200Ler	female	PA	no	L6.1224: obsidian blade/ L6.470: boar's tusk ornament or tool	ETB., pp.89-90

Grave No **DE60**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	cist	201Ler	female	PA	no	L6.1223: obsidian blade/ L6.10: terracotta spool/ L6.760: bone pin/ uninventoried: animal bone	ETB., pp.91-2

Grave No **DE61**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	pit	---	---	infant?	no	no	ETB., p.115

Grave No **DE62**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	pit	202Ler	---	neonate	no	no	ETB., p.73, pl.3-e

Grave No **DE63**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	semi-cist	203Ler	---	infant	no	no	ETB., pp.71-2

Grave No **DE64**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHI	pit	204Ler	---	neonate	no	uninventoried: bronze	ETB., p.55

Grave No **DE65**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	pit	---	---	infant?	no	no	ETB., p.90

Grave No **DE66**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	pit	---	---	infant?	no	no	ETB., p.74

Grave No **DE67**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	semi-cist	---	---	infant?	no	no	ETB., p.93

Grave No **DE68**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHI	jar	205Ler	---	foetus/ neonate	L1235: jar	uninventoried: obsidian blade	Hesperia, 26(1957), p.148/ ETB., p.86/
		205aLer	---	child			Zerner, 1990, p.24, figs.6-7

Grave No **DE69**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	pit	---	---	adult	L982: cup	no	Hesperia, 26(1957), p.148, pl.43f

Grave No **DE70**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHI	pit	206Ler	---	neonate	no	no	ETB., pp.68-9

Grave No **DE71-72**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHI	pit	238Ler 239Ler	male male	MA PA	no	L7.367: bone awl	Hesperia, 27(1958), p.127/ ETB., p.43, pl.1-b

Grave No **F2**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHI	pit	---	---	---	no	no	Hesperia, 23(1954), p.12/ ETB., p.168

Grave No **GK1 (or G1)**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	cist	---	---	---	no	no	ETB., p.119

Grave No **G2**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
LHI	pit	207Ler	female	PA	no	uninventoried: Animal bones uninventoried: chalcedony blade	ETB., p.67

Grave No **G3**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	cist	208Ler	female	PA	no	L5.834: bronze ring	ETB., pp.82-3

Grave No **H1**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	pit	31Ler	female	juvenile	L116: jug	L3.112-3: 2 topaz or garnet crystals/ L3.114-7: 4 stone beads/ uninventoried: bone bead/ L3.118: tusk shell tube/ L3.119- uninventoried: 2 oyster shell pendant or inlays/ uninventoried: bone pin or awl/ L3.120-2: 3 cowry shells/ uninventoried: 7 shells/ uninventoried: obsidian blade	Hesperia, 23(1954), p.20/ 26(1957), p.154, note 19/ ETB., pp.116-7

Grave No **J1**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	cist	53Ler	---	child	no	uninventoried: Animal bone	ETB., p.67

Grave No **J2**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	semi-cist	211Ler 212Ler	female male	PA YA	L590: cup/ L585: jug	L5.899,900, 902: 3 carnelian beads/ L5.901: crystal bead/ L5.903: shell bead?/ L5.904:	Hesperia, 25(1956), p.155, pl.40e/ ETB., p.65, pl.2-f

						paste bead/ L5.905: terracotta sphere/ uninventoried: animal bone	

Grave No **J3**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	cist 1	213Ler	female	YA	no	no	Hesperia, 26(1957),
		214Ler	---	juvenile			p.154/ ETB., pp.80-1
		215Ler	---	infant			

Grave No **J4A**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
SGE	cist	216Ler	male	adult	L1018: bowl	no	Hesperia, 26 (1957), p.154, pl.43a,b,c/ ETB., pp.81-2, pl.3-f

Grave No **J4B**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	semi-cist	217Ler	male	PA	L913: jug/ L914: kantharos/ L1054: kantharos/ L1052: jar	L6.314: bronze razor blade or knife/ uninventoried: shells	Hesperia, 26 (1957), p.154, pl.43a,b,c/ ETB., pp.81-2, pl.3-f

Grave No **J5**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	pit	218Ler	female	adult	L1031: kantharos	no	Hesperia, 26(1957), pp.154-5/ ETB., p.66

Grave No **JA1**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	pit	210Ler	male	adult	no	no	ETB., p.104

Grave No **M1**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	cist	59Ler	female	PA	no	no	Hesperia, 24(1955), p.48/ ETB., p.116

Grave No **SG1**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
LHI-LHII	shaft grave	---	---	---	no	no	Hesperia, 24(1955), pp.32-4,38,49, pls.15-17/ 25(1956), pp.163,173/ 26(1957), pp.145-6/ 27(1958), pp.141-2, fig.1/ ETB., pp.168-171

Grave No **SG2**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
LHI-LHII	shaft grave	---	---	adult	2 cups	bronze bits	Hesperia, 25(1956), pp. pp.155-7,159, 163,173, pl.39/ 26(1957), pp.145-6,153/ 27(1958), pp.141-2,fig.1/ ETB., pp.171-3

MYLOI

Grave No **I**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII/LHI	cist	---	---	adult	no	no	Dietz & Divari-Valakou 1990, 48

Grave No **II**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIIIB	---	---	---	---	4080: goblet 3850: jug	no	Dietz & Divari-Valakou 1990, 48

Grave No **III**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
LHIA	cist	---	---	adult	3848: jug	no	Dietz & Divari-Valakou 1990, 49-50

Grave No **IIIa**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
LHI	pit	---	---	sub-adult?	no	no	Dietz & Divari-Valakou 1990, 50

Grave No **IV**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
LHIB	cist	---	---	---	3849: jug	no	Dietz & Divari-Valakou 1990, 50

Grave No **V**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	cist	---	---	---	3842: kantharos/ 4076: jar/ 4079: cup/ 3854: jug	4078: terracotta whorl	Dietz & Divari-Valakou 1990, 50

Grave No **VI**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII/LHI	cist	---	---	adult?	no	6101: bronze Tweezers	Dietz & Divari-Valakou 1990, 56

Grave No **VII**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
LHI	cist	1st 2nd	--- ---	adult ---	3845: cup/ 3846: jug/ 3844: jug/ 3843: jug	6102: bronze knife/ 6103: bronze razor or dagger	Dietz & Divari-Valakou 1990, 56

Grave No **VIII**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII/LHI	pit?	---	---	adult?	3847: jug/ 3841: kantharos	no	Dietz & Divari-Valakou 1990, 60

KASTRAKI

Grave No **MH1**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
EH/MH	pit	---	---	adult	no	no	ASINE I[224], 116/ ASINE III:1[225], 20/ MH village,[226] 95, List of graves

Grave No **MH2**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
EH/MH	pit	---	---	adult	no	no	ASINE I, 116/ ASINE III:1, 20/ MH village, 95, List of graves

Grave No **MH3**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
EH/MH	pit	---	---	adult	no	no	ASINE I, 116/ MH village, 95, List of graves

Grave No **MH4**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII/LHI	cist	---	---	adult	2253: jug	uninventoried: 2 bronze beads	ASINE I, 116/ ASINE III:1, 20/ MH village, 95, List of graves/ Persson, 1925, 75

Grave No **MH5**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII/III	pit	---	---	adult?	no	no	ASINE I, 116/ ASINE III:1, 20/ MH village, List of graves

Grave No **MH6**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHI-II?	pit	---	---	sub-adult	no	no	ASINE I, 116/ ASINE III:1, 21/ MH village, 95, List of graves

Grave No **MH7**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII/III	pit	---	----	sub-adult	no	no	ASINE I, 116/ ASINE III:1, 21/ MH village, List of graves

[224] ASINE I: Frödin, O., Persson, A.W., 1938.
[225] ASINE III:1: Nordquist, G.C., 1996.
[226] MH village: Nordquist, G.C., 1987.

Grave No **MH8**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII/III	pit	---	---	adult?	no	no	ASINE I, 116/ ASINE III:1, 21/ MH village, List of graves

Grave No **MH9**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII/III	pit	---	---	sub-adult	no	no	ASINE I, 116/ ASINE III:1, 21/ MH village, 95, List of graves

Grave No **MH10**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII/III	jar	---	---	sub-adult	no	no	ASINE I, 116, 280/ ASINE III:1, 21/ MH village, 95

Grave No **MH11**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	jar	---	---	sub-adult	no	no	ASINE I, 116, 266/ ASINE III:1, 21-22/ MH village, 95, List of graves

Grave No **MH12**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	jar	---	---	sub-adult	no	no	ASINE I, 116, 294/ ASINE III:1, 22/ MH village, List of graves

Grave No **MH13**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII/III	pit	---	---	sub-adult	no	no	ASINE I, 116, 294/ ASINE III:1, 22/ MH village, List of graves

Grave No **MH14**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII/III	pit	LT06	---	child	no	no	ASINE I, 116, 294, 347/ 347/ MH village, List of of graves

Grave No **MH15**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII/III	pit	LT14	female?	YA	no	no	ASINE I, 116/ ASINE III:1, 22/ MH village, List of graves

Grave No **MH16**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII?	pit	---	---	sub-adult	no	no	ASINE I, 116/ ASINE III:1, 22/ MH village, 95, List of graves

Grave No **MH17**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	jar	---	---	sub-adult	no	no	ASINE I, 116, 276

Grave No **MH18**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII/LHI	cist	---	---	sub-adult	4146: jug/ 4148: jug/ 4152: cup/ 4153: jug	uninvetoried: purple shell uninvetoried: fish bones	ASINE I, 117/ ASINE III:1, 22/ MH village, 96, List of graves

Grave No **MH19**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	pit	E07a	---	neonate	no	no	ASINE I, 117/ MH village, List of graves

Grave No **MH20**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	cist	18FA	female	PA	3593: cup	no	ASINE I, 117/ ASINE III:1, 22-3/ MH village, 83, 96, fig.83, List of graves

Grave No **MH21**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII/III	pit?	19FA	male	YA	uninvetoried: bowl	no	ASINE I, 59, 117, 347/ ASINE III:1, 23/ MH village, 96, List of graves

Grave No **MH22**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	pit	E02	---	neonate	no	no	ASINE I, 117/ ASINE III:1, 23/ MH village, 96, List of graves

Grave No **MH23**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII/LHI	pit	20FA	male	PA	no	459F: terracotta whorl	ASINE I, 117/ ASINE III:1, 23/ MH village, 96, List of graves

Grave No **MH24**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII?	pit	---	---	adult?	no	no	ASINE I, 117-8/ ASINE ASINE III:1, 23/ MH village, 96, List of graves

Grave No **MH25**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	pit	---	---	adult?	no	no	ASINE I, 118/ MH village, List of graves

Grave No **MH26**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	cist	17FA	male	YA	no	no	ASINE I, 118/ ASINE III:1, 23/ MH village, List of graves

Grave No **MH27**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	cist	21FA	male	YA	no	no	ASINE I, 118/ ASINE III:1, 23/ MH village, List of graves

Grave No **MH28**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	pit	---	---	adult	no	no	ASINE I, 118-9/ ASINE III:1, 24/ MH village, List of graves

Grave No **MH29**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	cist	22FA	male	PA	no	no	ASINE I, 119, 347/ ASINE III:1, 24/ MH village, 95, List of graves
		W05a	---	neonate			

Grave No **MH30**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	cist	23FA	female	YA	no	no	ASINE I, 119-120/ ASINE III:1, 24/ MH village, 95, List of graves

Grave No **MH31**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	pit	24AF	male	OA	uninvetoried: bowl	no	ASINE I, 120/ ASINE III:1, 24/ MH village, 95, List of graves

Grave No **MH32**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII?	cist	---	---	sub-adult	4155: feeding bottle	no	ASINE I, 120/ ASINE III:1, 25-7/ MH village, 95, List of graves

Grave No **MH33**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII?	pit	W06	---	infant	no	no	ASINE I, 120/ ASINE III:1, 27/ MH village, 95, List of graves

Grave No **MH34**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	cist	---	---	sub-adult	4144: cup	no	ASINE I, 120/ ASINE III:1, 27/ MH village, List of graves

Grave No **MH35**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	pit	---	---	neonate	no	no	ASINE I, 120/ ASINE III:1, 27/ MH village, 95, List of graves

Grave No **MH36**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII/III	pit	W05b	---	neonate	no	no	ASINE I, 120/ MH village, List of graves

Grave No **MH37**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII/III	pit	---	---	---	no	no	ASINE I, 120/ ASINE III:1, 27

Grave No **MH38**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHI/III	pit	S01	---	adult	uninvetoried: cup	no	ASINE I, 120-1/ ASINE III:1, 27/ MH village, List of graves

Grave No **MH39**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	pit	---	---	sub-adult	no	no	ASINE I, 121/ MH village, List of graves

Grave No **MH40**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	pit	S03a	---	neonate	no	no	ASINE I, 121/ MH village, List of graves

Grave No **MH41**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII?	pit	S03b	---	neonate	no	no	ASINE I, 121/ MH village, List of graves

Grave No **MH42**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII?	pit?	---	---	sub-adult	no	no	ASINE I, 121/ ASINE III:1, 27/ MH village, List of graves

Grave No **MH43**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	pit	S04a	---	neonate	no	no	ASINE I, 121/ MH village, List of graves

Grave No **MH44**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	pit	S04b	---	neonate	no	no	ASINE I, 121/ MH village, List of graves

Grave No **MH45**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	jar	S05	---	neonate	no	no	ASINE I, 121, 266?/ ASINE III:1, 27/ MH

							village, List of graves

Grave No **MH46**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII?	pit	S07	---	neonate	no	no	ASINE I, 121/ MH village, List of graves

Grave No **MH47**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	pit	S06	---	adult	no	no	ASINE I, 121/ MH village, List of graves

Grave No **MH48**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHI/II	pit	S06a	---	neonate	no	no	ASINE I, 121/ MH village, List of graves

Grave No **MH49**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHI/II	pit	S06b	---	neonate	no	no	ASINE I, 121/ MH village, List of graves

Grave No **MH50**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	pit	S08		infant	no	no	ASINE I, 121/ ASINE III:1, 27/ MH village, List of graves

Grave No **MH51**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	pit	---	---	sub-adult	no	no	ASINE I, 121/ MH village, List of graves

Grave No **MH52-53**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	cist	15FA 14FA	female male	PA MA	uninvetoried: bowl?	uninvetoried: bronze tweezers/ uninvetoried: bronze pin	ASINE I, 121/ ASINE III:1, 27/ MH village, 95, List of graves

Grave No **MH54**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII/III	pit	---	---	---	no	no	ASINE I, 122/ MH village, List of graves

Grave No **MH55**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII?	cist	---	---	sub-adult	no	no	ASINE I, 122/ ASINE III:1, 27/ MH village, List of graves

Grave No **MH56**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII	pit	T4:01	---	infant	no	no	ASINE I, 122/ ASINE III:1, 27/ MH village, List of graves

Grave No **MH57**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHI	jar	---	---	sub-adult	no	no	ASINE I, 123/ MH village, List of graves

Grave No **MH58**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
post MHI	pit	6FA	male	MA	no	30636: bronze spearhead/ uninvetoried: obsidian chip	ASINE I, 123/ ASINE III:1, 27/ MH village, 95, List of graves

Grave No **MH59**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHI	cist	7FA	female	YA	no	uninvetoried: obsidian chip	ASINE I, 123/ ASINE III:1, 28/ MH village, 95, List of graves

Grave No **MH60**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	cist	8FA T3:15	--- ---	adult neonate	no	uninvetoried: terracotta whorl/ uninvetoried: obsidian chips	ASINE I, 123/ ASINE III:1, 28/ MH village, List of graves

Grave No **MH61**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHI	cist	9FA	female	adult	no	no	ASINE I, 123/ ASINE III:1, 28/ MH village, 95, List of graves

Grave No **MH62**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	cist	T3:14 10FA	--- male	neonate MA	no	uninvetoried: animal bones?	ASINE I, 123/ ASINE III:1, 28/ MH village, List of graves

Grave No **MH63**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	cist	T3:22	---	infant	no	uninvetoried: bone awl	ASINE I, 123-4/ ASINE ASINE III:1, 28/ MH village, List of graves

Grave No **MH64**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	pit	T3-2:04a	---	neonate	no	no	ASINE I, 123-4/ ASINE ASINE III:1, 28/ MH village, List of graves

Grave No **MH65**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	pit	T3-2:04b	---	neonate	no	no	ASINE I, 124/ ASINE III:1, 29/ MH village, List of graves

Grave No **MH66**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	pit	T3:13	---	infant	no	no	ASINE I, 124/ ASINE III:1, 29/ MH village, List of graves

Grave No **MH67**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	pit	T3-2:05	---	neonate	no	uninvetoried: terracotta whorl ?	ASINE I, 124/ ASINE III:1, 29/ MH village, List of graves

Grave No **MH68**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	pit	---	---	sub-adult	no	no	ASINE I, 124/ ASINE III:1, 29/ MH village, List of graves

Grave No **MH69**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	pit	---	---	sub-adult	no	no	ASINE I, 124/ ASINE III:1, 29/ MH village, List of graves

Grave No **MH70**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHI	pit	T3:04	---	neonate	no	no	ASINE I, 124/ ASINE III:1, 29/ MH village, 95, List of graves

Grave No **MH71**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	pit	---	---	sub-adult	no	no	ASINE I, 124/ MH village, List of graves

Grave No **MH72**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	cist	T3-2:07	---	neonate	no	uninvetoried: stone celt or axe?	ASINE I, 124/ ASINE III:1, 29/ MH village, List of graves

Grave No **MH73**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	cist	---	---	sub-adult	no	uninvetoried: stone celt or axe?	ASINE I, 124/ ASINE III:1, 33/ MH village, List of graves

Grave No **MH74**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	pit	11FA	female	PA	no	uninvetoried: terracotta whorl/ uninvetoried: basalt axe	ASINE I, 124/ ASINE III:1, 33/ MH village, 95, List of graves

Grave No **MH75**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	cist	---	---	sub-adult	no	no	ASINE I, 124/ ASINE III:1, 33/ MH village, List of graves

Grave No **MH76**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	pit	T3:05	---	neonate	no	no	ASINE I, 124/ MH village, List of graves

Grave No **MH77**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	pit	T3:06a	---	neonate	no	no	ASINE I, 124/ MH village, List of graves

Grave No **MH78**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	cist	T3-2:09	---	neonate	no	no	ASINE I, 124/ ASINE III:1, 33/ MH village, List of graves

Grave No		MH79					
	Date	**Grave**	**Skel.**	**Sex**	**Age**	**Pott_Off**	**Other_off**	**References**
	MH	cist?	---	---	sub-adult	no	no	ASINE I, 124/ ASINE III:1, 33/ MH village, List of graves
Grave No		**MH80**					
	Date	**Grave**	**Skel.**	**Sex**	**Age**	**Pott_Off**	**Other_off**	**References**
	MHII?	cist	12FA	female	PA	3809: jug	no	ASINE I, 124-5/ ASINE ASINE III:1, 33/ MH village, List of graves
Grave No		**MH81**					
	Date	**Grave**	**Skel.**	**Sex**	**Age**	**Pott_Off**	**Other_off**	**References**
	MH	pit	26FA	male	PA	no	no	ASINE I, 125/ ASINE III:1, 33/ MH village, List of graves
Grave No		**MH82**					
	Date	**Grave**	**Skel.**	**Sex**	**Age**	**Pott_Off**	**Other_off**	**References**
	MH	cist	13FA	---	child	no	no	ASINE I, 125/ ASINE III:1, 33/ MH village, List of graves
Grave No		**MH83**					
	Date	**Grave**	**Skel.**	**Sex**	**Age**	**Pott_Off**	**Other_off**	**References**
	MH	cist	---	---	sub-adult	no	no	ASINE I, 125/ ASINE III:1, 33/ MH village, List of graves
Grave No		**MH84**					
	Date	**Grave**	**Skel.**	**Sex**	**Age**	**Pott_Off**	**Other_off**	**References**
	MH	pit	27FA	male	YA	no	no	ASINE I, 125/ ASINE III:1, 34/ MH village, List of graves
Grave No		**MH85**					
	Date	**Grave**	**Skel.**	**Sex**	**Age**	**Pott_Off**	**Other_off**	**References**
	MH	pit	T3:06b	---	neonate	no	no	ASINE I, 125/ MH village, List of graves
Grave No		**MH86**					
	Date	**Grave**	**Skel.**	**Sex**	**Age**	**Pott_Off**	**Other_off**	**References**
	MH	pit	T3:06c	---	neonate	no	no	ASINE I, 125/ MH village, List of graves

Grave No **MH87**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	pit	T3:23	---	neonate	no	no	ASINE I, 125/ MH village, List of graves

Grave No **MH88**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	pit	T3-2:12	---	neonate	no	no	ASINE I, 125/ MH village, List of graves
		T3-2:03	---	neonate			

Grave No **MH89**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	pit	T3-2:04c	---	neonate	no	no	ASINE I, 125/ MH village, List of graves

Grave No **MH90**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	pit	---	---	sub-adult	no	no	ASINE I, 125/ ASINE III:1, 34/ MH village, List of graves
		---	---	adult?			

Grave No **MH91**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	pit	---	---	sub-adult	no	no	ASINE I, 125/ MH village, List of graves

Grave No **MH92**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHI?	Pit	---	---	sub-adult	no	no	ASINE I, 125/ MH village, List of graves

Grave No **MH93**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	pit	---	---	sub-adult	no	no	ASINE I, 125/ ASINE III:1, 34/ MH village, List of graves

Grave No **MH94**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	pit	---	---	sub-adult	no	no	ASINE I, 126/ MH village, List of graves

Grave No **MH95**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	pit	---	---	sub-adult	no	no	ASINE I, 126/ MH village, List of graves

Grave No		MH96					
Date	**Grave**	**Skel.**	**Sex**	**Age**	**Pott_Off**	**Other_off**	**References**
MHI/II?	pit	---	---	adult?	no	no	ASINE I, 126/ ASINE III:1, 34/ MH village, 95, List of graves

Grave No		MH97					
Date	**Grave**	**Skel.**	**Sex**	**Age**	**Pott_Off**	**Other_off**	**References**
MH	cist	1FA	male	MA	no	uninvetoried: obsidian flake?/ uninvetoried: obsidian flakes	ASINE I, 126/ ASINE III:1, 34/ MH village, List of graves

Grave No		MH98					
Date	**Grave**	**Skel.**	**Sex**	**Age**	**Pott_Off**	**Other_off**	**References**
MHI	pit	2FA T2:01	--- ---	adult infant	4133: bottle or jug	uninvetoried: 2 bronze rings/ uninvetoried: bone awl/ uninvetoried: animal bones/ 30649: terracotta whorl	ASINE I, 126/ ASINE III:1, 34-7/ MH village, 95, List of graves

Grave No		MH99					
Date	**Grave**	**Skel.**	**Sex**	**Age**	**Pott_Off**	**Other_off**	**References**
MHI-II	cist	3FA	male	PA	no	no	ASINE I, 126-7/ ASINE ASINE III:1, 37/ MH village, 95, List of graves

Grave No		MH100					
Date	**Grave**	**Skel.**	**Sex**	**Age**	**Pott_Off**	**Other_off**	**References**
MHI-II	pit	4FA	male	MA	no	no	ASINE I, 127/ ASINE III:1, 37/ MH village, 95, List of graves

Grave No		MH101					
Date	**Grave**	**Skel.**	**Sex**	**Age**	**Pott_Off**	**Other_off**	**References**
MHI/II?	cist	5FA T2:09	female ---	adult neonate	no	no	ASINE I, 127/ ASINE III:1, 38/ MH village, List of graves

Grave No **MH102**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	pit	T2:09b	---	infant	no	no	ASINE I, 127/ ASINE III:1, 38/ MH village, List of graves

Grave No **MH103**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	pit	T2:09c	---	neonate	no	no	ASINE I, 127/ MH village, List of graves

Grave No **MH104**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	cist	---	---	adult	no	no	ASINE I, 127-8/ ASINE ASINE III:1, 38

Grave No **MH105**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	pit	---	---	sub-adult	no	no	ASINE I, 128/ MH village, List of graves

Grave No **MH106**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	cist	---	---	---	no	no	ASINE I, 50

Grave No **MH107**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	pit	---	---	adult?	2252: cup/ 2250: cup	30637: bronze razor/ uninvetoried: obsidian arrowhead	ASINE I, 40/ MH village, List of graves

Grave No **MH108**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	cist	---	---	adult?	no	no	Asine I, 40/ MH village, village, List of graves

Grave No **MH109**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	cist	---	---	adult	no	uninvetoried: bone awl/ uninvetoried: obsidian chips	Asine I, 42-3/ Persson 1925, 33, Pl.X:1/ MH village, List of graves

Grave No	MH110						
	Date	**Grave**	**Skel.**	**Sex**	**Age**	**Pott_Off**	**Other_off**	**References**
	MH	cist	---	---	sub-adult	no	no	Asine I, 44-5/ Persson 1925, 33, Pl.XI:2/ MH village, List of graves

Grave No	MH111						
	Date	**Grave**	**Skel.**	**Sex**	**Age**	**Pott_Off**	**Other_off**	**References**
	MH	cist	---	---	---	no	no	Asine I, 45/ MH village, village, List of graves

EAST CEMETERY

Grave No **1970-7**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII-LHI	cist	42AS	---	infant	no	F70-13: 2 bronze rings	ASINE II:2[227], 26-30, 88/ Voutsaki et al. 2010

Grave No **1970-8**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII-LHI	cist	47AS	---	child/ juvenile	no	no	ASINE II:2, 26-30, 88/ Voutsaki et al. 2010

Grave No **1970-11**

Date	Grave	Skel	Sex	Age	Pott_Off	Other_off	References
LHI-II	cist	43AS	male	YA	no	no	ASINE II:2, 30/ Voutsaki et al. 2010

Grave No **1970-12**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII-III	cist	44AS	---	adult	no	32019: gold diadem/ uninvetoried: iron nail	ASINE II:2, 30/ Voutsaki et al. 2010

Grave No **1970-16**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	cist	45AS	male	MA	no	no	ASINE II:2, 30-32

Grave No **1971-1**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII-LHI	cist	52AS	male?	YA	no	no	ASINE II:2, 32-33/ Voutsaki et al. 2010

Grave No **1971-2**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII-LHI	cist	51AS	female	juvenile	30273: double jug/ 30274: jug	no	ASINE II:2, 33-34, 88/ Voutsaki et al. 2010

[227] ASINE II:2: Dietz S., 1982.

Grave No **1971-3**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
LHI	cist	54AS	male?	adult	30131-30145, 30194: 16 vases	27538: bronze dagger/ 30146: limestone pommel	ASINE II:2, 34-55, 88

Grave No **1971-5**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII-III	cist	53AS	female	MA	no	no	ASINE II:2, 55-56, 88/ Voutsaki et al. 2010

Grave No **1971-6**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	cist	57AS		adult	no	no	Dietz, ASINE II:2, 56-8

Grave No **1971-7**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MH	pithos	55AS 56AS	--- female	juvenile PA	no	no	Dietz, ASINE II:2, 58

Grave No **1971-10**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII-LHI	pit	60AS	male?	YA	30278: kantharos	F71-10,1: bronze knife/ 30279: gold ring	ASINE II:2, 58-60/ Voutsaki et al. 2010

Grave No **1971-11**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII-LHI	cist	61AS	female?	PA	no	no	ASINE II:2, 23-24/ Voutsaki et al. 2010

Grave No **1971-12**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHI-II	cist	62AS	---	child	no	no	ASINE II:2, 24-5/ Voutsaki et al. 2010

Grave No **1971-13**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII-LHI	cist	63AS	female?	adult	no	no	ASINE II:2, 60-2/ Voutsaki et al. 2010

Grave No **1971-14**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII-LHI	cist	64AS	---	adult	no	no	ASINE II:2, 62/ Voutsaki et al. 2010

Grave No **1971-15**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHI-II	pithos	49AS 50AS	--- female	YA YA	1971-15,1: bowl/ F71-23: cup/ 30196: cup/ 30198: jar	no	ASINE II:2, 62-63, 88/ Voutsaki et al. 2010

Grave No **1972-5**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII-LHI	cist	66AS 67AS	female ---	YA/PA neonate	no	no	ASINE II:2, 25-6/ Voutsaki et al. 2010

Grave No **1972-7**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
LHII	cist	58AS 59AS	--- male	infant PA	no	uninvetoried: animal bones	ASINE II:2, 63-4/ Voutsaki et al. 2010

BARBOUNA

Grave No **Alpha**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII/LHI	cist?	---	---	---	no	no	MH village, table 8.5, List of graves

Grave No **Beta**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII/LHI	cist	---	---	infant?	no	no	MH village, 98-99, List of graves

Grave No **A89.324**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII-LHI	'Sh.Gr'	F89/56	male	YA	30590: jug/ 30591: jug/ 30592: cup	no	Hägg R. & Nordquist Q., Op.Ath. 1992/ Hydra 8, 1991

Grave No **B 6**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	cist	83AS	male	PA	no	no	BARBOUNA: 1, 58-62

Grave No **B 7**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	cist	84AS	female?	PA	no	F127:2: terracotta whorl	BARBOUNA: 1, 58-62

Grave No **B 11**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHII/III	cist	88AS	---	YA	no	F73/428:3: 70 murex shells	Backe-Forsberg & Nordquist, n.d., 8-9

Grave No **B 12**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	cist	---	---	infant	30586: cup/ 30587: cup/ 73/411:5: cup	73/411:3-6: shell	Backe-Forsberg & Nordquist, n.d., 9-10/ Dietz 1991, 146

Grave No **B 15**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	cist	91AS	---	child	30588: goblet/ 30589: cup	F73/422:7: string of shells/ F73/422:11: string of shells/ 31280:	Backe-Forsberg & Nordquist, n.d., 10-11/ Dietz 1991, 146

						necklace/ 31279: 2 bronze rings	

Grave No **B 18**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	cist	93AS	---	neonate	no	no	MH village, 98-99
		93aAS	---	neonate			

Grave No **B 28**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	pit	105As	---	neonate	no	no	MH village, 98-99

Grave No **B 29**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	pit	106AS		neonate	no	no	MH village, 98-99/
		106aA		neonate			Dietz 1982, 85

Grave No **B 30**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
LHIA	'Sh.Gr'	107AS	male	PA	30322: jar or cup/ 30323: cup/ 30324: cup/ 30325: 'lamp'/ 30326: jug	no	Hydra 1, 1985, 25-6/ MH village, 98-99/ Dietz 1991, 146

Grave No **B 32**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	pit	108AS	female	YA	30581: goblet/ 30582: jug/ 30583: cup/ 30584: kantharos	no	Hägg, AAA 1975, 154-8, figs.7-8/ Hydra 1, 1985/ Dietz 1991, 146,

Grave No **B 33**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	pit	109AS	---	neonate	no	uninvetoried: bone bead	MH village, List of graves
		109aAS	---	neonate			

Grave No **B 34**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
LHIA	'Sh.Gr'	110As	male	YA	30585: cup	no	MH village, 98-99/ Dietz 1991, 146

Grave No **B 35**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIII	pit	111AS	---	juvenile	no	no	MH village, List of
		112AS	---	neonate			graves/ Dietz, 1982, 85

THE ASPIS

Grave No **TA1**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIIIA	cist	TA1/5	female?	MA	77/248-1: cup	no	Philippa-Touchais, A., 2013

Grave No **TA2**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIIIA?	cist	TA2/5	female?	adult	77/212-1, 77/212-2: cup with a lid	no	Philippa-Touchais, A., 2013

Grave No **TA3**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIIIA	pit	TA3/5	---	juvenile	no	no	Philippa-Touchais, A., 2013

Grave No **TA4**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIIIB?	pit	TA4/5	female	PA	77/278-1: pithos	no	Philippa-Touchais, A., 2013

Grave No **TA5**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIIIA	pit	TA5/5	male	PA	no	no	Philippa-Touchais, A., 2013

Grave No **TA6**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIIIA	pit	TA6/5	female	YA	no	no	Philippa-Touchais, A., 2013

Grave No **TA7**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHI-II	pit	TA7/4	female	YA	no	no	Philippa-Touchais, A., 2013

Grave No **TA8**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHI-II	pit	TA8/5	female?	PA	no	no	Philippa-Touchais, A., 2013

Grave No **TA9**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIIIA	pit	TA9/5	---	neonate	no	no	Philippa-Touchais, A., 2013

Grave No **TA10**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIIIA	jar	TA10/479	---	neonate	75/1276-1: bowl	no	Philippa-Touchais, A., 2013

Grave No **TA11-TA12**

Date	Grave	Skel.	Sex	Age	Pott_Off	Other_off	References
MHIIIA	pit	TA11/598	---	adult	77/312-1: cup/	no	Philippa-Touchais, A., 2013
		TA12/600	---	neonate	77/312-2: cup		

APPENDIX VII

PhD defence proposition

1. Until recently the MH period was described as homogeneous and static. However, differentiation and change through time was observed in all sites examined in this thesis. Next to variability in grave types and sets of offerings, different spatial contexts were used inside and outside the settlement and diverse mortuary practices have been attested.
2. Changes started already from the beginning of the MH period but they became intensified towards its end. In general, two major change horizons can be proposed, one at the beginning of the MH II and a second at the transitional MH III/LH I-LH I.
3. Differentiation was not only observed within each burial place, but also between sites during the same period. Although in general similar practices were followed, the way each community used them and the time they adopted or abandoned these practices was not uniform. Every burial site has its own history and the nature of change differs from site to site. Generally, a steady 'scaling up' was observed, but it did not affect all sites in the same way.
4. In all cemeteries and through time kinship was the most important structuring principle and age position in the kin network the most important component. Gender was less emphasised but became more important during the MH III-LH I period in some, but not all sites.
5. In Lerna the developments in the earlier part of the period do not set in motion an increase in social complexity. On the contrary, in Asine and in Argos social complexity increased at the end of the MH period.
6. The existence of elite groups or of aggrandizing leaders of factions was not confirmed for the greater part of the MH period. I would like therefore to propose that instead of local elites or faction leaders already present in the MH II period, the burial record reveals a rather fluid situation, arising perhaps from continuous negotiation between social groups, most probably kin-related. It can be suggested that some groups or individuals, especially during the later part of the MH period and the transition to LH, were expressing their claims on status, trying to

distinguish themselves through burial elaboration and mortuary ritual as well as feasting, rather than merely legitimate already existing status divisions.

APPENDIX VIII

C U R R I C U L U M V I T A E

Eleni Milka, BA, MPhil., Drs

HOME ADDRESS:

Neas Kiou 12
21100
NAYPLIO
GREECE

Tel. ++30 27520 99382 (home)
++30 6972156086 (mobile)

E-MAIL ADDRESS: elmilka@yahoo.gr

BORN: August 13, 1976, Thessaloniki (GREECE)

EDUCATION:

1999	BA in History and Ethnology, Democritus University of Thrace, Greece
2003	M.Phil. in Prehistoric Archaeology, Aristotle University of Thessaloniki, Greece
2019	PhD in Aegean Prehistory, University of Groningen, The Netherlands

RESEARCH INTERESTS AND SPECIALISATION: Aegean Prehistory; Argive Archaeology; Mortuary Archaeology; Human Osteology-Paleopathology

LANGUAGES: Greek (mother language), English (competent level), Dutch (3rd level), German (reading level)

DIPLOMA, M.Phil., PhD TITLES:

1999	"Paleopathology of Long Bones", Diploma, University of Thrace, Department of History and Ethnology. Supervisor: Prof. N.I. Xirotiris
2003	"Burial Practices in Neolithic Greece", M.Phil. Dissertation, Aristotle University of Thessaloniki, Department of Archaeology. Supervisor: Prof. K. Kotsakis
2019	"Mortuary Differentiation and Social Structure in the Middle Helladic Argolid, 2000-1500 B.C", PhD Dissertation, University of Groningen, Institute of Archaeology. Supervisor: Prof. S. Voutsaki

WORK EXPERIENCE

A. FIELDWORK:

1997	Participation in the systematic excavation of the Neolithic Paradimi, Thrace. Department of History and Ethnology, Democritus University of Thrace and ΙΘ Ephoreia of Komotini, Greece. Supervisors: Prof. K. Gallis and D. Matsas
1998	Participation in the rescue excavation of the Early Iron- Classical cemetery of Nea Filadelfia, Thessaloniki, Greece. Supervisors: Dr V. Misailidou (archaeology), Prof. N.I. Xirotiris (anthropology)
1999-2000	Working as anthropologist in the rescue excavation of a Byzantine cemetery in Korytiani, Thesprotia, Greece. Director: G. Riginos
2000	Working as anthropologist in a Byzantine church cemetery in Mauromati, Thesprotia, Greece. Director: G. Riginos
2001, 2002, 2004	Trench supervisor and small finds recording in the systematic Neolithic excavation of Paliambela, Pieria. Aristotle University of Thessaloniki and University of Sheffield. Directors: Prof. K. Kotsakis, Prof. P. Halstead
2002	Participation in the systematic excavation of Barnavos-Nemea Mycenean chamber tomb cemetery project. Nemea Valley Archaeological Project, Bryn Mawr College, USA. Directors: Prof. J. Wright, Dr E. Pappi

2006	Trench supervisor in the systematic excavation of Ayia Sotira-Nemea Mycenean chamber tomb cemetery project. Directors: Prof. J. Wright, Prof. A. Smith, Dr E. Pappi, Dr M. Dabney, Dr S. Triantaphyllou
2007	Excavating a Middle Helladic tomb at the site of Aspis, Argos, Greece. Directors: Prof. G. Touchais, Mrs A. Philippa-Touchais
2009-2018	Contacting rescue excavations at the region of Kranidi, Southern Argolid, Greece. Under the supervision of the EFAAR.

B. LABORATORY AND MUSEUM WORK:

1998-1999	Identifying human bones and studying paleopathology in the Laboratory of Physical Anthropology, Department of History and Ethnology, Democritus University of Thrace, Greece.
2000	Cleaning and identifying human bones from Korytiani and Mauromati, Thesprotia for the Archaeological Service of Igoumenitsa, Thesprotia, Greece.
2003	Cleaning, identifying and studying for publication the human skeletons of the Iron Age-Classical cemetery of Nea Filadelfia, Thessaloniki in the Archaeological Institute of North Greece.
2004	Re-studying the finds from the Middle Helladic and Late Helladic I graves from Lerna and the Aspis in the Archaeological Museum of Argos, Greece.
2005	Re-studying the finds from the Middle Helladic and Late Helladic I graves from Asine in the Archaeological Museum of Nauplion, Greece.
2006	Re-studying the finds from the Middle Helladic and Late Helladic I graves from the Tumuli of Argos in the Archaeological Museum of Argos, Greece.
2009-2012	Studying pottery and small finds from Villia, Agios Panteleimonas, Kranidi in the Archaeological Museum of Nauplion, Greece.

PUBLICATIONS:

2004a Milka E., Papageorgopoulou Chr., 2004, Anthropological analysis of the skeletons from the cemetery of Nea Philadelfeia. In D. Grammenos, S. Triantaphyllou (eds.), Anthropological research in Northern Greece, Thessaloniki, TAPA.

2004b Voutsaki S., Triantaphyllou S., Kouidou-Andreou S., Kovatsi S., Milka E., 2004, "Lerna, 2000-1500 BC: A Pilot Analysis", Pharos XI (2003), 75-80

2005 Voutsaki S., Triantaphyllou S., Milka E., 2005, "Project on the Middle Helladic Argolid. A Report on the 2004 season", Pharos XII (2004), 31-40

2006a Milka E., 2006, "From cemeteries to society. The study of the Middle Helladic burials from the Argolid, Southern Greece", SOJA Bundel 2005, 53-63

2006b Voutsaki S., Triantaphyllou S., Ingvarsson-Sundström A., Kouidou-Andreou S., Kovatsi L., Nijboer A., Nikou D., Milka E., 2006, "Project on the Middle Helladic Argolid. A Report on the 2005 season", Pharos XIII (2005), 93-117

2006c Milka E., 2006, "Mortuary Differentiation and Social Structure in Middle Helladic Lerna, Southern Greece, 2000-1500 B.C.", AJA, abstracts of the AIA Meeting 2006

2007 Voutsaki S., Triantaphyllou S., Ingvarsson-Sundström A., Sarri K., Richards M., Nijboer A., Kouidou-Andreou S., Kovatsi L., Nikou D., Milka E., 2007, "Project on the Middle Helladic Argolid: a report on the 2006 season", Pharos XIV (2006), 59-99

2009 Voutsaki S., Sarri K., Dickinson O., Triantaphyllou S. & Milka E., 2009, "The Argos 'tumuli' Project: A report on the 2006 and 2007 seasons", Pharos XV (2007), 153-192

2010 Milka E., 2010, "Burials Upon the Ruins of Abandoned Houses in the MH Argolid", In G. Touchais, A. Philippa-Touchais, S. Voutsaki, J. Wright, eds., MESOHELLADIKA: The Greek Mainland in the Middle Bronze Age. Proceedings of a Conference held in Athens, 8-12 March 2006, BCH Supplément 52, 347-355

2013a Voutsaki S., Milka E., Triantaphyllou S. & C. Zerner, 2013, Middle Helladic Lerna: Diet, Economy, Society. In S. Voutsaki and S.M. Valamoti (eds.), Diet, Economy and Society in the Ancient Greek World: towards a better integration

of archaeology and science. Proceedings of the international conference held at the Netherlands Institute at Athens 22-24 March 2010, Leuven, 133-147.

2013b Ingvarsson-Sundström, A., Voutsaki S. & E. Milka, 2013, Diet, Health and Social Differentiation in the MH Asine: a bioarchaeological view. In S. Voutsaki and S.M. Valamoti (eds.), Diet, Economy and Society in the Ancient Greek World: towards a better integration of archaeology and science. Proceedings of the international conference held at the Netherlands Institute at Athens 22-24 March 2010, Leuven, 149-161.

2016 Voutsaki, S., Milka, E., 2016, Social change in Middle Helladic Lerna. In C. W. Wiersma and S. Voutsaki (eds.), Social Change in Aegean Prehistory, 98-123.

ORAL PRESENTATIONS, POSTERS AND STUDIES:

1999 "Paleopathology of Long Bones", 1st Conference of Anthropology Students, Athens, April 25, 1999

2000 "Contribution and Methods of Anthropology in the Archaeological Field: the case of Korytiani cemetery", Recent Archaeological Research in Thesprotia, Igoumenitsa, January 13, 2000

2002 Co-authored by G. Kordatzaki and E. Milka, "The Negotiation of Space by Sotirios Dakaris", The Topography of Ancient Thesprotia, Igoumenitsa, June 28, 2002

2004a Co-authored by S. Voutsaki, S. Kouidou-Andreou, L. Kovatsi, S. Triantaphyllou and E. Milka, "Lerna 2000-1500 BC. The biography of a community", Poster presented at the conference on Biomolecular Archaeology, Amsterdam, March 18-19, 2004

2004b "Mortuary variability in the Middle Helladic Argolid. A case study", Research Day of the Groningen Institute for Archaeology, Groningen, December 10, 2004

2005a "From cemeteries to society. The study of the Middle Helladic burials from the Argolid, Southern Greece", Symposium voor Onderzoek door Jonge Archeologen (SOJA), University of Leiden, February 19, 2005

2005b "Burial diversity and change in Middle Helladic Asine, Southern Greece", Theoretical Archaeology Group (TAG), University of Sheffield, December 20, 2005

2006a "Mortuary differentiation and social structure in Middle Helladic Lerna, southern Greece, 2000-1500 B.C", 107th Annual Meeting of the Archaeological Institute of America (AIA), Montréal, January 7, 2006

2006b "Middle Helladic Burials from Southern Greece", Ancient Word Seminar, Groningen, January 25, 2006

2006c "Burials Upon the Ruins of Abandoned Houses in the Argolid", MESOHELLADIKA conference, Athens, March 10, 2006

2007 "Diversity and Change in Mortuary Practices: a comparison of Lerna, Asine, Argos", Middle Helladic Argolid Project, Athens, December 19, 2007

2009 Archaeological documentation of the monuments on the course of two Mycenaean roads, from the Acropolis of Mycenae to Prosymna and to the Argive Hereaum. Study financed by the former Municipality of Mycenae.

2010a Co-authored by Voutsaki S., Milka E., Triantaphyllou S. & C. Zerner, "Middle Helladic Lerna: Diet, Economy, Society", Diet, Economy and Society in the Ancient Greek World: towards a better integration of archaeology and science, International conference held at the Netherlands Institute at Athens, 22-24 March, 2010

2010b Co-authored by Ingvarsson-Sundström, A., Voutsaki S. & E. Milka, "People, animals and social diversity in Middle Helladic Asine: a bioarchaeological view", Diet, Economy and Society in the Ancient Greek World: towards a better integration of archaeology and science, International conference held at the Netherlands Institute at Athens, 22-24 March, 2010